NEW ENGLAND FARMER

DEVOTED TO AGRICULTURE, HORTICULTURE, AND KINDRED ARTS.

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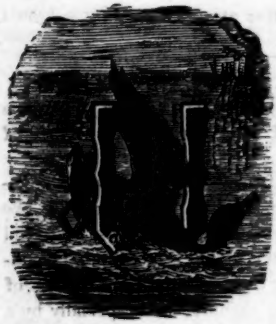
MAY, AND MAY REVELRIES.

"Violets, blue violets—
Meekly around the door-stone springing,
A little rose to the lattice clinging,
Or o'er the door;
Are ever whispering some graceful thing
As the foot on the threshold is wandering
Carelessly o'er."

E. Barnard Thorp.



UPON this pleasant month of May, how many fine prose articles and impressive poems have been written. No other month stirs up within us such feelings of joy as this. Not because, as a whole, it exceeds all the others, but because it has *some days* reminding us of the joyous realizations of which Milton and Thomson, and other of the grand poets have so sweetly sung, or of the Elysian fields which nestle under the mountains on the northern shores of the Mediterranean sea, where the invalid breathes soft and dry airs, while listening to the ever restless and surging waters. Those bright days call up the descriptions by travellers of the charming Mentonian amphitheatre at the head of the gulf of Genoa, where invalids and travellers are glad to rest under the lemon and olive-clad hills of the lonely town, Mentone. Such days are transient, it is true, but they impress every feeling heart with an undefinable sense of joy which no lapse of time can eradicate. Like the life of a good man, the month of *May* is not all sunshine and sparkling with gems, but has its clouds and storms and nipping frosts; and it is altogether more beautiful from the very contrasts which these changes afford.

A charming and instructive English writer, in speaking of the seasons, says, "Spring is with us once more, pacing the earth in all the primal pomp of her beauty, with flowers and soft airs, and the songs of birds everywhere about her, and the blue sky and the bright clouds above. But there is one thing wanting to give that completeness to her advent which belonged to it in the olden times, and without which it is like a beautiful flower without scent, or a beautiful face without a soul. The voice of man is no longer heard hailing her approach as she hastens to bless him; and his choral symphonies no longer meet and bless *her* in return—bless her by letting her behold and hear the happiness that she comes to create. The soft songs of women are no longer blended with her breath as it whispers among the new leaves; their slender feet no longer trace *her* footsteps in the fields and woods and wayside copses, or dance delighted measures round the flowery offerings that she prompted their lovers to place before them on the village green. Even the little children themselves

that have an instinct for the spring, and feel it to the very tips of their fingers, are permitted to let May come upon them without knowing from whence the impulse of happiness that they feel proceeds, or whither it tends."

This was truly said of the people in milder regions than ours, where pelting storms and untimely frosts, never succeeded a calm, bright, and beautiful May day, such as we sometimes have. To inspire us up to the pitch of enthusiasm which the old writers felt, our month of May must partake more of the character of June—but hot to be like June, after all—May with us does not "pace the earth in all the primal pomp of her beauty, with flowers and soft airs everywhere." We must wait until June for this lovely garniture and life-giving airs. Then, in June, the summer has come, and the delicious and soul-stirring sensations of the advent of *Spring* cannot be realized!

There is something singularly impressive in this. We can no more call up at will, in the autumn, the feelings inspired by a balmy May-day, or in June, those awakened in a bright, nut-dropping, October morning, than the leopard can change his spots. The seasons have their influences upon our natures as well as upon the vegetable kingdom. Some temperaments are inspired and made joyous by aspects of the autumnal months, while others feel an undefinable gloom resting upon them during the fruition and decay of vegetable life about them.

Another temperament is soothed and made happy by the gloom of November, the shifting skies and moaning winds, which are full of harmony to them. The trees have laid up the promise of future fruitfulness in compact buds, carefully bestowed to spring into life when the warmth and moisture of a coming *May* shall excite them. They have performed all their duty for the season, cast their leaves back to the generous earth, and are seeking their winter repose,—only occasionally awaking from their hybernative state, when the too constant and powerful rays of the sun excite them too much.

So another temperament finds pleasure in mid-winter, when the wind roars through leafless branches, or careers over the hills, filling the air with snow which it sweeps before it into the valleys.

In the famous city of Ephesus, about the period in which St. Paul visited it, the whole month of *May* was usually consecrated to the glory of the goddess *Diana*. From the towns on the coast and in the interior, the Ionians came up with their wives and children to witness the gymnastic games and musical contests, and to enjoy the various amusements which made the days and nights of *May* one long scene of revelry.

The practices of our English ancestors were not objectionable. They assembled on the green, or in groves, erected the May-pole, crowned that and each other with garlands of flowers and evergreens, and sang and danced away the hours in merry and healthful amusements.

Our people have caught something of that innocent inspiration. But our *May* will neither afford us the flowers, nor permit us to visit the woods and groves, unless panoplied in the habiliments of winter. Boots and overcoats, mufflers and mittens, do not harmonize with fresh flowers and dancing on the "green;" the discordance destroys all sentiment, and we are obliged to honor the good taste of our ancestors by crowning our girls with hot-house flowers, and dance around them in gas-lighted halls.

FARM WORK FOR MAY.

Among the work which ought *not* to be done in the month of *May*, nor in April, is that of pruning trees.

WINTER GRAINS.—Where land was ploughed last fall and sowed to winter grain, the crops will be greatly promoted,—if the soil upon which they stand is not in high condition—by giving them a slight top-dressing of composted, fine manure, and especially by a dressing of ashes. A half dozen bushels to the acre, if no more can be spared, will be of essential benefit.

PLOUGHING. — Some farmers prefer to plough the land quite early in the spring which is intended for oats, barley or wheat, and then plough again a day or two before the seed is sown. On land which is high and dry, this practice may be a good one; but, after all, it admits of a question. Nature has a process of preparing the land for us in the spring, which can hardly be improved upon. The frost has swollen it, and then leaves it with such slight finger-touches that the particles are

left in a light and porous condition, most admirably fitted for the percolation of rain water, the admission of air and heat, and the very valuable atmospheric action which will take place in such a soil.

Now if the soil is turned over by a plough, the pressure of the mould board upon the furrow-slice, as the plough proceeds, will compact it, and leave it much heavier than it would have been if left undisturbed until nature had got through with her operation. Would it not be more economical, so far as the labor of preparation is concerned, and also be in a better condition for the crops, not to disturb the soil until it will crumble when moved and fall into a fine and porous mass? After this later ploughing, the more finely the soil is made and the more thoroughly it is mingled, the greater certainty there will be of a paying crop.

Water Courses.—All the water courses on the farm, whether they are carefully laid drains, open ditches or brooks, should be examined—if they were not last month—and cleared of obstructions, so as to allow all surplus water to pass readily away. Some drains may remain entirely inoperative for a year to come, perhaps, if this slight matter is not seasonably attended to.

Sowing Seeds.—Oats do much better for being sowed early, than most other grains. Before the middle of April is not too early, if the soil is in prime condition to receive them. Barley will do well if not sown until nearly a month later. Some farmers think it does better.

Turning to Pasture.—As a general thing, most persons turn their cattle to pasture too early, when there is little or no feed for them. If so, they roam gloomily over the pastures, poaching them with their feet, exposed to wind and rain, perhaps, and lose both flesh and milk, instead of gaining anything. But they should not be kept out too long. When the grass is an inch high, it is better to have it fed off than to remain longer without being cropped. If kept down to about that point through the season, there will be much more feed and of a better quality. It is then sweet and nutritious.

The Garden.—Do not neglect the vegetable garden, and the women will certainly add "nor the flower garden." Vegetables and small fruits are not only much cheaper, but they are also more wholesome than much meat in hot weather; and they are better directly from the garden to the pot and the table than when lying a day or two after they are gathered.

Plant peas, beans, potatoes, cabbage, corn, &c., at successive times, so as to have them coming on in perfection through the entire growing season.

Grape Vines.—Set a few Concord or other grape vines. They are easily cultivated, and their fruit will prove acceptable and healthful to all.

Sundries.—Sow a few radish seeds, and they will bring a refreshing salad, crisp, juicy, and apperizing, with your evening tea.

Sage seeds, also, to establish roots for years to come, and supply all the sage needed for sausages or sage tea for invalids.

Summer Savory—pleasant to the eye, to smell, and to season soups.

Asparagus.—Stock a bed of this with roots, if you have not one already.

Lettuce.—Refreshing, wholesome, easily cultivated.

Cauliflower.—Highly relished by many.

THICK AND THIN SEEDING.

As the season for sowing the small grains and grass seed is at hand, our attention is called to the practice about us in relation to the *quantities* of seeds which are employed in sowing an acre of ground. This varies considerably, and in some instances is widely different.

In several tables before us, recommending the amount of seed to be used per acre, we find the smallest amount of millet to be twenty-four quarts, and the largest a *bushel and a half!* In our own practice, from eight to twelve quarts,—varying as the quality of the land varies—is all we have used; and the growing crop has seemed to justify that practice. Upon turning to Flint's "Dairy Farming," where he speaks of forage crops for milch cows, we find he commends millet, and states if it is designed to be cut for green fodder, half a bushel of seed to the acre should be used; if to ripen seed, twelve quarts, sown broad cast, about the last of May or early in June.

Here, then, is the difference of an entire bushel to the acre. No difference in the qual-

ity of soils will justify this great disparity in the amount of seed to be used.

In seed wheat, the tables vary forty quarts; the lowest being three pecks, and the highest, eight pecks per acre. Barley, one and one-half to two and one-half bushel. Oats, two to four bushel. Rye, one to two bushel. Beets in drills, four to six pounds. Indian corn for soiling broadcast, three to four bushel. Peas in drills, one to two and one-half bushel. Carrots, from two to five pounds; the smallest amount would probably be sufficient if in drills.

In returns made to the Secretary of the Board of Agriculture, something more than one-third of the whole recommend one bushel of redtop, weighing twelve pounds; one peck of timothy, weighing eleven pounds, and five pounds of red clover for an acre. There is a pretty general agreement in the quantity of timothy and clover, with the amount just mentioned. Some of the returns, however, are as low as one-half a bushel of redtop, and as high as half a bushel of timothy.

One of the points by which we should be governed in sowing, is the weight and fineness of the seed, as a pound of one kind may contain three or four times the number of individual seeds that another kind does. The more single seeds there are in a pound or bushel, the more there will be to each square foot of the field.

Another point is the quality of the soil upon which the seeds are sown. If it is rich, a less number will be required, because the plants coming from them will be more vigorous, and require more room than they will on a poor soil.

A third reason for sowing more or less seed is in the mechanical condition of the soil. If a field has been ploughed when too wet, so that the leveling and harrowing did not break up the lumps, and give a fine, mellow tilth, that field will require more seed than one that is in good condition in this respect, because a considerable portion of the seed will not come up. Some of it will be left upon the surface, and dried up by sun and wind; but a much larger portion buried too deeply under the lumps and rot there.

If the land is weedy, *thick seeding is indispensable.* One or the other must prevail. If weeds take the precedence, there will be little of anything else. This is the difficulty in the way of laying lands to grass in the spring without a grain crop. The weeds are so much more hardy, and so rapid in their growth, that they occupy the ground before the grass gets strong, and thus they are kept under throughout the season.

A generous seeding is, therefore, the safest course always. Most of our lands are weedy, though under a pretty high state of cultivation, so far as richness is concerned. Thin seeding may answer on soil free from weeds, but on a thin soil, infested with weeds, the seeding should be thick to bring the plants very near each other.

In the *Country Gentleman*, just come to hand, we find the following testimony of Mr. Wm. Newton, of Henrietta, N. Y. He says:

"To test the question of thick and thin seeding, a small part of the field was sown at the rate of two bushels per acre. On this piece the oats were two or three days later than on the rest of the field, and showed signs of rust, but were not materially injured by it. The result of my observations is that oats that are thickly sown are much less liable to be injured by rust; that they ripen earlier, and that the straw is brighter and of better quality, than when only a small quantity of seed is used. This liability to rust is one great objection to very thin seeding. From observation and experiment, I am led to the conclusion that the quantity of seed usually sown is not sufficient; that more might be used to advantage. * * The largest crops of oats I have ever seen raised, were sown at the rate of three and one-half bushels per acre."

MASSACHUSETTS POULTRY ASSOCIATION.

At a meeting held at the Parker House, Boston, on the 22d of March, by a number of gentlemen interested in the breeding and management of Poultry, it was voted to form an organization to be known as the "Massachusetts Poultry Association," and the following officers were elected for the ensuing year:—

President, Philander Williams, Taunton.
Vice Presidents, William J. Underwood, Belmont; Atherton F. Brown, Boston; Elbridge C. Comey, Quincy; Moses Ellis, Framingham; Henry F. Felch, Natick; Edmund Rodman, New Bedford; G. Morgan Smith, South Hadley; George B. Durfee, Fall River; C. Carroll Loring, South Boston; John B. Moore, Concord.
Corresponding Secretary, J. M. Cady, Boston.
Recording Secretary, W. B. Atkinson, Newburyport.
Auditor, Edwin N. Rice, Clinton.
Treasurer, Nathaniel Foster, Jr., Belmont.
Executive Committee, John P. Buzzell, Clinton; Jacob Graves, Reading; Mark Pitman, Salem; Wm. H. Brackett, Boston; Col. Geo. A. Meacham, Somerville; Geo. F. Champney, Taunton; Joseph K. Pierce, Holliston; Chas. E. Tuttle, Boston; Julius K. Bannister, Boston; Chas. L. Copeland, Milton.

—The *Rural New Yorker* says the most efficient remedy for the onion grub is irrigation. If it is practicable to flood the garden affected by the grubs it will almost totally annihilate them. After a copious shower of rain they often disappear.

SOW A VARIETY OF GRASS SEEDS.

VERY many farmers in laying lands to grass sow only two kinds of seed, timothy and red top, when the seed is sown with grain in the spring. Clover seed is usually added the succeeding spring, though sometimes it is sown with the other seeds.

When the sward is turned over in the autumn, clover seed is usually sown with the grass seeds, as it has time to get established so as not to be thrown out by frosts the succeeding winter. Clover seed is not generally used with a grain crop, as it is supposed to cover the ground so closely as to obstruct the growth of the grain.

The question to be decided, is, whether or not it is best to sow a larger *variety* of seeds, or continue on in the old routine?

If we examine the turf of an old pasture that is well stocked with grasses, one that affords rich feed, and that holds good through the summer, we shall find that it contains a considerable variety of grasses,—from ten to fifteen varieties, instead of the two varieties, timothy and red top, which are commonly used. Does this indicate that the soil may contain elements which are favorable to different kinds of grasses and will produce them abundantly if their seeds are sown in it? It certainly seems so. Mr. Secretary FLINT, in his work on *Grasses and Forage Plants*, says: "I hold this proposition to be indisputable; that any soil will yield a larger and more nutritious crop if sown with several kinds of nutritious grasses, than when sown with only one or two species. Indeed it is a fact established by careful experiment, that a mixture of only two or three species of grasses and clover will produce a less amount of hay than can be obtained by sowing a larger number of species together. * * But it is true that if we sow but one kind of grass, however abundantly the seed may be scattered, or on whatever soil it may be, or under however favorable influences, only a part of the plants will flourish; vacant places will occur throughout the piece, which will be filled up after a time by grasses of an inferior quality, weeds or mosses. If a mixture made up of a larger number of kinds of seed, is used the plants will cover the entire surface, and produce a far better quality of herbage."

We do not cultivate *Orchard grass*, sometimes called *Rough Cock's Foot*, to half the extent which would prove profitable. The late Judge Buel said he should prefer it to almost every other kind of grass. Cows are very fond of it. It is one of the most lasting grasses we have. A field stocked with orchard grass, which we occasionally see, has been mowed, it is stated, for more than thirty years in succession, and now yields about one ton of hay per acre. As a pasture grass it affords an early bite, and as a crop for hay sowed with red clover it is of a very high order. When used for pasturage, it should be kept closely cropped. Sheep will pass over every other grass to feed upon it, otherwise it becomes coarse and harsh. It is less exhausting to the soil than rye grass or timothy. It will endure considerable shade, and as its fibrous roots extend to a long distance below the surface, it will withstand drought for a long time.

Referring for a moment to the manner in which old pastures are stocked, we find that an examination of one gave to a square foot of the surface 910 plants; 880 of these were natural grasses; thirty were clover and other plants, and twelve were distinct species.

Let us suggest to the farmer, to test a piece of land this spring with a much larger *variety* of seeds than he has usually employed, and communicate results to these columns.

ALSIKE CLOVER.

Several inquiries were made through our columns last year as to the value of the *Alsike*, or Swedish clover, *trifolium hybridum*. It is a hybrid of the ordinary red and white clovers, and while it partakes of the qualities of both, it has some peculiarities which belong to neither of them.

We have carefully observed the opinions given of this plant by those who have cultivated it, and find a general agreement on several points. That its roots are fibrous, and of unusual length, which would tend to prevent its being thrown out of the ground by frost, and give it ability to withstand drought. It makes finer and better hay, for the stalks are not so thick and woody as those of red clover. Its foliage and blossoms are more

abundant than on the red clover. The flowers are said to be very beautiful, of larger size than those of the white clover, of pinkish color, and are very fragrant.

Mr. J. B. Turner, of Jacksonville, Ill., sowed six acres, using from three to four pounds of seed to the acre with the usual amount of timothy seed. He says it came up very thick, though the drought was unparalleled in thirty years' expericnce in that region. It grew about half knee high by the last of September, and blossomed out all over the field within about three months of the time of sowing, and on the 8th of November furnished an abundance of fresh feed for the stock. He adds,—I am very much pleased with it indeed. I believe it is hardier, more prolific, and furnishes more feed for stock than the red or white clover, and is of a far more desirable quality for cows or hogs, and especially for horses.

The *Canada Farmer* states that the quantity of seed required per acre is five pounds when sown clear; and about half that amount when sown with timothy. It should be sown in the spring with wheat or barley, in the same manner as red clover. When allowed to ripen its seed, it cannot be cut more than once in a season, as it bears its seed with the first blossoms in each year; but if grown for a hay crop, it can be cut again in the fall, and will yield a generous lot of fine hay for calves and sheep. Its rank growth on rich ground makes it liable to lodge. It is said to afford excellent pasturage for bees.

We hope that many of our readers will test this clover by sowing it this spring on various soils, and in feeding it to all kinds of stock.

Until the seed is more abundant the price will remain high; but the small quantity required per acre will enable many persons to give it a fair trial.

PROPER DEPTH OF SEEDS.

A very considerable proportion of the farmers of New England do not raise the grass seeds which they annually sow. With it they purchase a variety of foul seeds which not only cost much money, but are stocking the land with hardy and worthless plants. In addition to these losses, there is another question which has been too little regarded, viz: that of ascertaining the depth at which seeds will most readily and certainly germinate.

In sowing grass seed, the common practice is to plough and harrow the land, level a little with spade and hoe, sow the grass seed with grain and harrow again. This last operation is usually performed with a harrow whose teeth are from five to eight or ten inches in length. Each tooth opens a drill, as the implement passes along, to the depth of half its entire length, at least. The teeth are arranged in gangs, so that the whole surface is moved. Is it not probable, then, that very many of the seeds drop into these drills, and are covered so deeply as to prevent their coming up? We have no doubt of it; nor any doubt that the farmer meets with a serious loss in this respect.

It would be an easy matter for farmers to experiment for themselves, by placing seeds in small pots, cups or saucers, and place them on the window sill, or in any warm position where the seeds would have a favorable place for sprouting. Scatter some seeds upon the surface, and leave them there. Then place others at various depths below the surface by pressing a pointed stick, that is marked with inches and parts of inches, into the soil. Make a record of time where sowed, depth, and time of appearance of plant, and the operation will give a fair idea of the depth at which various seeds should be planted, in order to secure a quick and healthy germination.

Various experiments are on record in relation to this matter, one of which was with Indian corn. That which was planted at the depth of

No. 1.	1	inch,	came up in	8½ days.
" 2.	1½	"	"	9½ "
" 3.	2	"	"	10 "
" 4.	2½	"	"	11½ "
" 5.	3	"	"	12 "
" 6.	3½	"	"	13 "
" 7.	4	"	"	13½ "
" 8.	4½	"	"	— "
" 9.	5	"	"	— "
" 10.	5½	"	"	— "
" 11.	6	"	"	17½ "

Nos. 8, 9, 11, were dug up after twenty-two days, and it was found that No. 8 had an inch more to grow to reach the surface of the earth. Nos. 9 and 11 had just sprouted, but were short and 3 inches below the surface. No. 10 came up in seventeen and one-half days, but the tender leaf remained only six days green, and then withered.

This experiment shows very clearly the advantage of shallow planting, when the soil is in good condition; that is, not too loose, nor

too solid, but in a fine, mellow tilth, where sun, air and moisture can do their work.

It appears that the more shallow the seed was covered with earth, the more rapidly the sprout made its appearance, and the stronger afterward was the stalk. The deeper the seed lay, the longer it remained before it came to the surface.

PETRI, an authority with which we are not much acquainted, but who seems to have given the subject careful attention, gives an experiment made on rye, with the following results. The first column shows the depth at which the seed was placed; the second the number of days that elapsed before it appeared above ground; the third, the number of plants that came up.

Depth.	*Appeared.*	*No. of Plants.*
½ inch	11 days	7 plants.
1 "	12 "	all "
2 "	18 "	7 "
3 "	20 "	6-8 "
4 "	21 "	4-8 "
5 "	22 "	3-8 "
6 "	23 "	1-8 "

The root stalk, Mr. Petri says, forms itself always next below the surface of the ground, and if we place the grain deep, it must first put out its sprouts to the surface and form its side branches in a near connection with the air. We never find that sucker roots are ranged from below to above, but the contrary.

It ought to be remembered, in this connection, that the *finer the soil is made* the more certainty there is that seeds will come up quickly and strong.

ANALYSIS OF SOILS AND MANURES.

Some years ago farmers were encouraged to expect great practical benefits from the teachings of science based on analyses of farm soils. In 1851 the Ohio Board of Agriculture employed Mr. David A. Wells "to examine, analyze and report on the nature and composition of the soils of the State." The Board, Mr. Wells, and the public generally were sadly disappointed by the result of his labors. After spending the summer in conducting analyses and comparisons, Mr. Wells made this confession:—

"We find but little difference in the amount and value of the mineral constituents of the Ohio and the Hampden County, Mass., soils; if anything, *the advantage is on the side of Massachusetts soils.*"

And yet he tested some of the richest soil in Ohio,—that of the Scioto Valley—soil that had then been cultivated fifty years, "and now," he says, "with the most ordinary culture, yields on an average, one year with another, eighty bushels of corn to the acre."

A few years since, Dr. Jas. R. Nichols analyzed some ordinary barn yard manure. He assumed that

A cord of such manure would weigh	3000 lbs.
The pure water therein	2456 lbs.
The pure sand	138 "
	2594 lbs.
Deducting these worthless substances and there remains only	406 lbs.
Deducting the carbonaceous matter, no better than peat, straw, or chaff	332 lbs.
	74 lbs.

"and we have left," he says, "only seventy-four pounds of active fertilizing material which has a money value." These fertilizing materials, all that he found in a cord of manure, he proceeds to show may be purchased in the market for three dollars and thirty-five cents. And yet practical farmers continue to use manure in the vicinity of Boston that costs, including hauling, ten, twelve and more dollars per cord, instead of manufacturing it according to his formula, which is as follows:—

Crude nitrate of soda or sulphate of ammonia	$2.60
One and a half bushel of good wood ashes	35
15 lbs. common salt, 10 lbs. of bone dust,	
3 lbs. of gypsum	50
Peat or muck, say,	10

Dr. Nichols then says:—

By substituting nitrate of potassa, or saltpetre, for soda, the compost is greatly improved, while its cost is enhanced. If the salts are dissolved in water,—those that are soluble,—and the bone in ley, and good muck is employed, a compost is formed very nearly as valuable as seasoned excrement. Very nearly, we have said—why is it not of equal value?

We have reason to believe it is owing to a minuteness of the subdivision of atoms, which we can neither produce nor comprehend,—a degree of comminution which sets at defiance all mechanical and chemical manipulation. Besides this, there is, however, a peculiar condition arising from, or communicated by, the contact of vital forces, which science is incapable of explaining.

In short, the same salts and organic matter as found in the dung-heap, have a higher money value, and seem to exert a more specific influence upon plants than when presented in artificial mixtures.

If, then, there is a value or "condition" in a cord of barn-yard manure, "which," as the Dr. confesses, "science is incapable of explaining," may there not be some similar condition, property or combination in special manures that analysis is incapable of explaining or showing?

The proprietors of the "Grafton Mineral Fertilizer" published an analysis of the ore from which the fertilizer is made. Assuming this analysis to be correct, Dr. Nichols has expressed the opinion that the Grafton Mineral Fertilizer is worthless, or nearly so. As will be seen by reference to our advertising columns, a large number of farmers in New Hampshire who have carefully experimented with it during the past two years say that they have found it a valuable fertilizer. Personally we know nothing of its merits or demerits, but on the recommendations of so many farmers residing in its "own country," where a prophet is proverbially

without honor, we propose to try this "fertilizer" on a small this season.

Specimens of the rock taken fresh from the diggings, and also of that which has been acted upon by the air have been left at this office. An examination of them would hardly suggest to a practical farmer the idea of manure. Neither, probably, would a specimen of native gypsum. Nor would a hod of anthracite suggest the idea of firewood to one who had never heard of "burning stones."

"THE FARMERS' RING."

Farmers have so long occupied the back ground in the legislation of the country that the following paragraph from the Prairie *Farmer* is interesting at least for the novelty of the thing:—

In the Springfield correspondence of the Chicago *Times*, and in the editorial columns of that paper, it is alleged that a "Farmers' Ring," has been organized in our State Legislature, (Illinois,) which professes to rather run things in its own way, and, especially, in opposition to the lawyers, over which class the farmers have a majority of one or two.

While admitting that there is a grain of truth in this statement, the *Farmer* says it is not strictly in accordance with the facts. The agricultural members of the legislature of Illinois have formed a club, at which, among other subjects, the proposed laws which affect the industrial classes of the State are discussed. Several of the members of this club are lawyers, who meet and vote with the farmers. While this "ring of farmers" are endeavoring to secure their own rights, they are not in opposition to the lawyers or any other class. Though we have a hearty dislike for most of the rings which attempt to influence legislation, we wish there might be such a ring in the legislature of every State as that alluded to by the Chicago *Times*—a "Farmers' Ring." Whether as a ring or otherwise, we believe that farmers are to influence the legislation of the country in the future more than they have done in the past.

EDUCATION OF FARMERS.

A very able article on the importance of education to farmers appeared as a communication in a late number of the Lexington, Ky., *Farmers' Home Journal*. The writer claims for Henry Clay the credit of laying the foundation for a grant of land by Congress to establish agricultural colleges, and gives the following extract of a letter written by Mr. Clay, and now in the possession of the correspondent of the *Home Journal*. Mr. Clay said:—

"My name will be remembered with more pleasure and gratitude by those that know me, for my devotion to agriculture and mechanic arts, than all my long life spent in politics. We must have colleges and schools in connection with the arts and sciences, the army, the navy, the clergy and the bar. *But the production of our daily bread, our very existence, is too common-place and wholly neglected by our law-makers.*

Let Congress donate lands to establish Agricultural Colleges in all the States. Many of our law-makers are professional men, mostly residing in towns and cities, and have but little sympathy with the farming classes, hence, the danger of having no check from the honest, hard-working agriculturists that communes every day with his Maker. *Educate educate* the farmer. No amount of reading alone can make a man a farmer. He must have long experience, accompanied by keen observation. But on the other hand, no man can be thoroughly an intelligent farmer who depends solely upon his own practice, and neglects to avail himself of the knowledge of others, communicated orally or by the press. It is my belief, that no farmer of observation and thought, can read a good agricultural paper, regularly, without deriving from it more benefit than many times its cost, and wherever a family is growing up around him, it would be wisdom to subscribe for several."

The date of this letter is not given. Mr. Clay died in 1852. The act for the grant of land for the establishment of agricultural colleges was passed in 1862.

THE COWS ARE COMING.

BY ALICE, ROBINS.

The cows are coming, Jessie, dear, make haste and see the sight;
There are twenty milky beauties to be housed and fed to-night.
The first one with snow-white horns is just as old as May;
She and my pet first saw the light the same soft summer day.

A tender creature was she, so weak, and cold, and thin!
John said she was not fit to raise. I said it was a sin
To cast her off, for Maybud's sake. John laughed, and asked me whether
I thought it best, upon the whole, to rear *two* calves together.

But she was spared and so was May. It sometimes seems to me,
In Starbright's soft and gentle eyes, May's pleading glance I see.
I love the creature—you may smile—perhaps my fancies mock;
She's the fairest of the herd, as May's the sweetest of the flock.

There's May, her arms round Starbright's neck; the girl is nine to-day;
A frolicsome and genial thing at study or at play;
The darling in our failing years, the spring our autumn set,
A fair white jewel blazing in our faded coronet.

But see, John lets the bars down; in clover deep they stand
With glossy flanks, and backs as straight as yonder table-land:
The fragrance of their breath pours in like ambergris and myrrh;
They're just the neatest cows to milk—John says they never stir.

They know his tone—'tis seldom loud; they know his touch—'tis kind.
"John has a way," the neighbors say, to make dumb creatures mind;
Perhaps—I only know that I, through all these blessed years,
Have never seen the moment when his voice has brought me tears.

—Small pieces of non-resinous wood may be perfectly seasoned by boiling four or five hours. The boiling seems to take the sap out of the wood, which shrinks nearly one-tenth in the process.

EXTRACTS AND REPLIES.

EGG PLANT.

Among the things mentioned by Mr. Quinn on which "Money in the Garden" is realized by those who have a market for vegetables, is the Egg Plant. It is not raised to a great extent, as the demand is limited. He says it is a tender annual, must be

started early in the hot-bed, and is more difficult to start in the spring than any kind of vegetable he grows. There are several varieties, but he prefers the New York Improved. He says that near New York the plants may be set in the open air about the 20th of May. Here they should be transplanted a week or more later. Mr. Quinn says:—

They require a deep, rich soil, well worked. We set the plants three feet apart each way, and sprinkle some superphosphate or some finely-ground bone immediately around the roots at the time of planting. Each plant is taken from the bed with a square of earth around the roots. The afternoon before transplanting, the plants are copiously watered, so that the soil will adhere to the roots. Then, with a long-bladed knife to cut through on either side, each plant is removed without disturbing the roots. The plants are placed on a wheelbarrow, and taken where they are to be set out.

It is important to use all this care, for, unless all the conditions are just right, Egg Plants are very tardy in starting, and with the market-gardener this is a matter of dollars and cents. When they first come into market they usually bring two dollars per dozen; later, the price goes down to seventy-five cents or one dollar a dozen.

The ground should be hoed frequently, kept loose and free from weeds. Plants that grow to full size will average from seven to nine eggs to a plant, of the "New York Improved." Two or three dozen plants will give an abundance of eggs for a family of six or eight persons.

PLOUGHING UNDER MANURE.

Your correspondent C. of Wilmington, Vt., tries to persuade people to put their manure on top, and I try to have them plough it under. But I do not hold to getting it very deep. C. thinks nature has provided a way for enriching the soil. So it has, but it is so very slow a way that we farmers dislike to wait for it. He admits that it takes ages to do it. I think there can be improvements made on nature's way of enriching the soil. Nature has no other way but to leave it on top. Does any one suppose it would not be better covered up?

It seems that C. puts on three dressings of manure during the three years that he has his land up, but he does not tell us how much he applies to the acre at each time. He must put on a light dressing, or his land is poor, or his manure is poor, or he loses a share of its value by not ploughing it under. I wish Mr. C. could see the crops I get from one dressing of manure of from twenty-five to thirty loads to the acre, put on to greensward and turned under, once in five or seven years, then see if he would say ploughing under manure is a failure. I would ask him if he has ever tried turning under manure thoroughly, for I mistrust that he is so afraid of losing it that he has never tested that mode. I don't know but they have land in Wilmington on which two loads of manure on top is as good as three turned under, but we have not in Woodstock.

We will take, for example, a piece of worn out land, not so badly, however, but that it will grow a small crop to start with, and sow clover seed or some other seed, and as it gets grown, plough it under and sow again and turn that under. Now how long will it take to make a rich piece of land of it? Then take another piece of similar land and let nature have its course and the vegetable matter decay on the surface. Does any one think it would be as good? Would it ever get as rich? Some may say the ploughing enriches it. Very likely it may a trifle, but not much. I wish people were not so afraid of signing their whole names to what they write. C. F. LINCOLN.

Woodstock, Vt., March 13, 1871.

ORCHARD GRASS AND ALSIKE CLOVER.

I wish some of your readers that can speak from actual knowledge, will tell me through your paper whether orchard grass and aslike clover are the best for soiling through the summer? Where can the clover be obtained? Where winter rye is used for the above purpose what time in the fall is the best for sowing it? A. R. B.

Elmore, Vt., March 24, 1871.

REMARKS.—Both of the grasses referred to are new to most of the farmers of New England. In other parts of this page our correspondent will find something in relation to both alsike clover and orchard grass, and we fully endorse the request that those who can will speak from actual knowledge for the benefit of others as well as of A. R. B.

MILK COWS AS LONG AS THEY GIVE MILK.

Mr. PRESIDENT:—How will a young farmer know what to do about milking his cows when old farmers disagree? From my experience of forty years as a farmer, I must differ from Mr. D. Kimball, in FARMER of March 18. I have in several instances injured cows by trying to dry them two or three months before calving. Bunches have come in their bags, and the milk became curdy and thick, apparently the same as in cases of garget. To save cows from being spoiled, I milk them twice a day clean and dry as long as the milk comes into their bags, even to the time of their calving.

As to Mr. Kimball's neighbor's cow being spoiled by milking too long, I think it was because she was not milked enough. From my observation I think many good cows and heifers are injured and sometimes spoiled by not milking them before they calve.

I have one cow now in my barn, fifteen years old this spring, that I have owned eleven years. She

has given milk the most of the time since I have had her. She has never been sick a day, nor gargety except once when I tried to dry her two months before her calving; nor does she have small calves. I have a four-year-old cow, one of her calves, that girths over six feet, and a steer calf brought up on one-half of her milk, that will be one year old the 28th of this month, and kept since he was weaned same as I keep the rest of my stock, that measures almost five feet.

Now, in conclusion, my advice to "A Young Farmer," to an old one, and to every body else that keeps cows, would be to take good care of them summer and winter, with plenty of good nourishing food, well sheltered from the storms and cold, and be sure they are milked regularly and dry, as long as they have milk in their bags, whether it is up to the time of their calving or not. The hammer falls! JOHN L. JONES

Ripley, Me., March 21, 1871.

P. S.—I wish you could fill another page of your paper with just such reading matter as the first is filled with. J. L. J.

REMARKS.—Is the motion in the postscript seconded? Are you ready for the question? As many of the members of the Club as think they can furnish enough of "just such reading matter" to fill another page, will say, aye.

RAISING CUCUMBERS FOR PICKLES.

Having about one acre of land that is well adapted to the culture of cucumbers, I will inquire of you or some of your correspondents, if there is a ready market for them when properly prepared or pickled? If so, what are they worth a barrel? What kind of barrels are the best to keep them in, and what is the *best* mode of pickling them? Will they command enough better price in market by being put into vinegar, to pay the expense of preparing them that way, or is it better to put them down in salt? Not knowing how to properly prepare them either way, and wishing to try the experiment one season, I hope that some one who has had experience in that business will inform, through your valuable paper, which way is the best; and give the full particulars how to prepare them in the most successful manner.

S. D. GREENLEAF.

Starks, Me., March 27, 1871.

REMARKS.—This is a branch of Market Gardening; a part of a trade which requires an apprenticeship as much as watchmaking or any of the mechanic arts. Cucumbers for pickles are raised to a large extent in the vicinity of Boston. We are told that a single pickle establishment in Boston has 175 acres planted for them every year, and that they also buy of others. A West Cambridge gardener says that not less than five cords of manure should be allowed for an acre of cucumbers. The land must be in good condition and not liable to suffer from drought. The hills are usually some five to six feet apart. The seeds are planted from the middle of June till the middle of July. The striped bugs are fought with plaster, powdered bone, &c. It is recommended to put seeds for six or eight plants in a hill, to be thinned to three or four when well established.

We are indebted to W. K. Lewis, 93 Broad St., Boston, for some information which may be of use to Mr. Greenleaf. The Short Prickly, Early Cluster and Early Frame varieties are recommended. As near four inches in length as possible is the desirable size for pickling. They should be gathered daily, clearing the vines of everything large enough. Leave half an inch of the stem on the cucumbers and be careful not to bruise them. Have an open cask of strong brine, and as fast as the cucumbers are gathered put them into the brine, and keep them constantly covered by the brine. After remaining in this brine some time, say till the picking season is over, it must be thrown away and the cucumbers be put into a new clean, strong brine of rock salt. Good liquor or provision barrels are used. If the whole process is performed in a workmanlike manner the cucumbers will keep till the next spring or summer when better prices are often obtained than in the fall or winter. Most pickle dealers prefer to buy them in this condition, as different men have different ways of preparing them for the table.

But if you have a market for pickles you may prepare them yourself. As we have already remarked, different individuals have different ways of doing this. The following has been recommended for family use:—Soak the cucumbers five or six days, drain them and put them in a jar with the following pickle: to one gallon of vinegar add three pounds of sugar, two or three onions, a teacupful of allspice, half a cup of cloves, a pod or two of red pepper; boil all and pour over the pickles hot. The ladies of your own and neighboring families will help you to other receipts for pickling the cucumbers.

The salted cucumbers are now worth twenty-five cents a gallon,—usually at this season from seventeen to twenty cents a gallon. The drought last season cut short the crop and prices are unusually high. Hence it is probable that they may be raised this year in sufficient quantities to reduce the price to a low point.

EARLY POTATOES.

Last spring I got the leading varieties of early potatoes including King of the Earlies, Early Rose, Early Snow Ball, Early Mohawk and other varieties intending to fairly test them. But it so happened that I did not get the King of the Earlies until several days after the others were planted. I could scarcely perceive any difference in the Early Rose, Early Snow Ball and Early Mohawk. The King of the Earlies which was not planted until five days later, ripened earlier than either, although the King the Earlies were planted on ground that was not so dry as the other varieties. The largest yield of the early varieties was from the Early Rose. The largest yield that I got from any variety was from the Harrison, closely followed by the Peerless or No. 6. I intend to test them on a more extended scale this season and will inform you of the result.

Which is the most valuable as an absorbent (the cost of obtaining being the same) charcoal dust or saw-dust? What is the most valuable variety of cabbage to raise for market? What variety of onion is the best for a general crop? H. B.

Hollis Centre, Me., March 17, 1871.

REMARKS.—Simply as an absorbent saw-dust will be much the cleanest, but the charcoal dust

the most valuable as a material in compost. Our garden correspondent, recommends for early cabbages, Jersey Wakefield, Early and Large York, Early Ox-heart, Winningstadt, and Early Flat Dutch; for later, Marblehead Mammoth, Stone Mason, Common Ball, Flat Dutch, Green Globe, Savoy. Of onions he names Weathersfield Red, Danvers Yellow, White Portugal and Potato.

WHO HAS PEACH AND CHERRY TREES FOR SALE?

Do you know of any one that has cherry and peach trees for sale that are grown in this State? I should like to buy some this spring. If any one has trees I wish they would advertise in the FARMER, and then we should know where to go for them. C. R.

Lexington, Mass., April, 1871.

BEST EARLY CORN.

I have raised corn for over forty years, and think the Scandinavian corn that I got of A. M. Everts, five years ago, is the earliest and best kind I ever raised. It ears well and has all been sound and well filled over the ends of ears. The yield has been large. In 1870 I picked my seed in seventy-nine days from planting. WM. NOYES.

Salisbury, Vt., March 18, 1871.

WATERLESS PRAIRIES.—String Prairie in Green county, Ill., is well adapted to corn raising and cattle feeding, but in dry seasons is much troubled for water, though wells have been sunk 100 feet. It was generally supposed that water would be reached by boring not over 600 feet. A gentleman near Carrolton, Mr. Geo. L. Burras, obtained a steam engine and the necessary implements for an artesian well, and sunk a shaft 370 feet, when the drill was broken. A second well was started near by and after going down 1004 feet, the work was abandoned. The materials passed through were, as stated by a correspondent of the *Prairie Farmer*, as follows:—soil and clay 47 feet; shale, 334 feet; sand rock, 117 feet; lime rock, 506 feet. No statement of the expense of this experiment, which extended with several vacations from November, 1867, to January, 1871, are given.

MAPLE SUGAR.—On account of there being so little snow on the ground, many predicted a small run of maple sap this season. We are glad however to learn that the sugar harvest has been abundant in all parts of New England. Our friend J. L. Goldsmith of Water Village, N. H., informs us that in his school district, No. 5, in the town of Ossipee, twenty-eight of the thirty families included in its limits have made as much as nine thousand pounds of maple sugar this season. In addition to a supply for his own family, Mr. Goldsmith has sold one hundred dollars worth, mostly in Portsmouth; for some of the earliest of which in nice cakes he realized twenty-five cents a pound.

—The Elgin *Gazette* says that the Illinois Condensing Company ship 100,000 cans of condensed milk every month from Elgin to New York City.

SPRING.---AN INVOCATION.

BY W. BRAILSFORD.

Up in the hawthorn in the dale
The blackbird tells his lovely tale,
With voice all blithe and free;
Bright sunshine on the willows gleams,
The perch moves softly in the streams—
Spring! Spring! we call for thee.

The torpid bee, with drooping wing,
Would fain pursue his ministering
In orchard crofts and bowers;
But ah! he waits thy cheering smile,
Whose truth would all his fears beguile,
And yield him pleasant flowers.

The violet half opes its eye,
As if it feared some fate was nigh
To end its early day;
The primrose leaves the mossy beds,
And wavering every petal spreads,
With perfume for love's May.

The snow-flakes melt, the ice is gone,
Only the winds sound drear and lone,
Life trembles in the reed;
Only the winds in forest trees
Awake sad echoes from the leas,
And chill the growing mead.

Only the winds, they seem to stay,
As if their part were meant alway
For recklessness and doom;
Come, fairest Spring, come bid them cease,
And give the slumbrous earth release
From Winter's freezing gloom.

We call thee from those regions fair,
Where all thy sweet handmaidens are,
Love sighs where suitors weep.
Hark! hark! the notes of Time's old bells,
Would charm thee with their wonted spells,
So waken from thy sleep.

STEAM CULTIVATION IN ENGLAND.

Prof. Cook, of the New Jersey State Agricultural College, furnishes the *Country Gentleman* a highly interesting account of steam cultivation as seen by him last summer in England. The implement used was a triangular iron cultivator with nine teeth, the outer ones being seven feet apart. In mellow ground the teeth would penetrate about 15 inches. This one was working on very hard soil, never ploughed more than four or five inches deep, yet it was breaking it up to the depth of 10 or 12 inches at the rate of 20 acres a day.

Two locomotives of 10-horse power were used, one at each side of the field, which was perhaps a quarter of a mile across. A wire rope extended from one to the other. The engines advanced the width of the cultivator each time it crossed the field. It was worked at the rate of five miles an hour.

One man rode on the cultivator, and could steer it so as to pass around obstructions. Two men were on each engine and a sixth with horse and cart was engaged in drawing water for the boilers.

The work was done by contract, the farmer paying 9 English shillings (say $2.25) per acre. This in not much cheaper than the work could be done with horses, but it was better done, and could be rapidly done just

when wanted. The same men had cultivated 1200 acres on the same farm the year previous. The owner of the apparatus owned 10 or 12 sets, all at work within 20 miles. The cost of the engines, ploughs, cultivators, &c., is at least £1500 (say $7500.

A single engine is used frequently, with a rope extending twice across the field, with anchors on the opposite side.—*Western Farmer.*

For the New England Farmer.

THE HAY CROP.

Poor Prospect.

What are we going to do for hay the coming year? is a question one hears discussed quite anxiously wherever the drought of last year prevailed.

The grass seed that was put in with spring grain is making a small show at this time, except on exceptionally favorable fields. On high dry land it is nearly a total failure, and the plants are thin on most of the newly seeded ground.

On old fields the best kinds of grasses are dead and only the poorer sorts left, and on thousands of acres in this part of New England the white grub, (the larva of the May-bug,) has entirely killed every thing but sorrel and a few other coarse weeds. The turf may be rolled up like a mat, by the acre.

Pastures are also injured by the same causes and the prospect for summer feed is not at all promising.

If this state of things existed only on an eighth or a tenth part of our farms it would be nothing very serious, for that amount could be ploughed and planted with the usual hoed crops and again reseeded, but where the damage is from one-fourth to nearly the whole, it becomes a very serious matter.

Curing Fodder Corn.

Dairy farmers will need to make some extra effort this season in order to provide sufficient forage for their stock. Having this subject on my mind I called the other day on Mr. Rensselaer Jillson, at his farm near Woonsocket, R. I. I had heard of his large fields of fodder corn, and something of his method of curing and using the fodder, but I wished to learn more of the details of his management.

Mr. Jillson, like many others, believes in corn fodder, and has raised it several years for fall feeding, getting it ready as early as possible and feeding it green till frost comes. The last two or three years he has been trying to learn how best to cure it for feeding after frosty weather prevents its being fed green. He is satisfied that it is neither practicable nor profitable to try to house it in any large quantities. It grows so large that the stalks hold moisture enough to cause violent heating if packed in buildings.

If it could be kept standing on end, under cover it would cure perfectly, but if it begins to lean over and pack down it will heat and spoil. And then he raised such immense quantities on his farm that housing it is with him entirely impracticable. He plants the largest Southern white variety, because it will produce so much more than any other kind. Thinks sweet corn is liked by the cows better than the Southern, but he can not grow enough of it on an acre to suit his ideas of profit. Always plants in drills, using about three bushels of seed per acre. Does most of the work of hoeing with a horse hoe. Plants at intervals of about ten days, that the harvesting may not all come at once.

As soon as the corn is fit to feed, it takes the place of pasture grass and hay for his cows,—giving them all they will eat each day.

When the first planting is in blossom and before the leaves begin to get much dry, it is cut and laid on the ground to wilt for a few days, if the weather is favorable. If a storm is expected, it is bound in bundles as large as a man can easily handle and immediately stooked. He tried many ways of stooking, but with indifferent success, till he learned to make large stooks and have them stand alone in the field till wanted at the barn. He now makes his stooks about ten feet in diameter, setting the corn quite straight up, and uses no bands to confine it but depends only on its own *weight* and *size* to keep it upright.

When the second planting is ready, it is treated in the same manner, and so on through the fall till there is danger of frosts, when all that remains is cut down and stooked.

After this time, it is drawn to the barn as wanted as long as it lasts. This year he had it in good condition till December or January.

He thinks it may be kept in very good condition till March. The outside of the stooks gets considerably weather beaten, but the inside keeps bright and sweet, and his cattle waste but very little of it. They have in winter one feeding of it per day, which is one-third of their food, exclusive of grain. His cows show that they are well fed and the prices he obtains for his milk, as well as the neatness of everything about the stables, indicates that he does not believe in neglecting the comfort or cleanliness of his animals.

Like other bold experimenters, he has sometimes made costly mistakes, but his system of growing and curing cornfodder for winter use is being adopted by his neighbors; and this season many farmers in this section will try to benefit themselves and their stock by following his example.

It is is not claimed that green cornfodder is *better* food for cows than green grass; but in the absence of grass it *is* claimed that more good food can be obtained from an acre of land in corn, than from any other known crop, with the same expense for manure and labor.

And this year, with such a poor prospect for hay, it looks as if it would be a good time to give cornfodder both as a summer and winter feed, a pretty extensive trial.

Cultivation of Fodder Corn.

If the ground is thoroughly tilled in the spring, the cost of planting and hoeing need not be very great. The first plantings may need hand hoeing, but the later plantings will hardly be benefited by it if the horse hoe or cultivator is judiciously used.

I use a Holbrook's Horse Hoe middle tooth to open the rows and after sowing the corn by hand, cover it with the outside teeth of the horse hoe, with the wings set so as to throw just dirt enough over the corn to cover it all, or I go across the furrow with a light bush, which will do the work just as well. In large fields the bush is best; in small lots the horse hoe works better. As soon as the corn is up, it should be worked out with a horse hoe or suitable cultivator and the land made light and the weeds killed between the rows. This should be repeated every week till the corn is too large to cultivate, after which it will take care of itself and the weeds too. Last year Mr. Jillson weighed several loads of his corn and found that on one field of five acres he was getting on the heaviest part of it about forty tons per acre, and judges it will shrink from 75 to 80 per cent. by being stooked for winter use, which allows from eight to ten tons per acre of dry fodder. It never gets as dry or light as hay that is cured in summer. The stalks contain some juice and the cattle probably like it better than if it were made entirely dry and crisp.

Orchard Grass.

My late recommendation of orchard grass brings many inquiries from readers of the FARMER. One gentleman from New Hampshire asks if it will make a crop to cut the coming haying season, if sown this spring? He says he has a five acre lot that was in corn last year, which he had intended to sow to oats for winter fodder, for cows, but thinks he might sow orchard grass instead, if he can get a crop this year; says a part of the land will not be fit to plough before the last of April, and asks if that will be early enough for the grass seed.

Season and Method of Seeding.

The belief seems to be very common among farmers that grass seed sowed in the spring will not produce a crop of hay the first year. The usual practice is to sow some kind of grain with the grass seed. The grain comes up first, grows faster and taller than the grass, and gives it little chance to show what it might do if sowed alone.

Carrots, beets and parsnips would hardly make a crop the first season, if treated in the same way grass is treated when sown with stronger growing plants, like oats, barley or wheat, or if allowed to be overrun with coarse, rank weeds.

I have known a few farmers to try grass in the spring without a grain crop who have failed, because their land was so foul with weeds. They said they would never try it again, because if they did not sow grain they would only get a crop of weeds. Some very good farmers never sow grass seed in the spring, but take off a crop of oats or barley and then plough and seed with grass alone. In this way they get one good crop in the season, and the grass is not apt to be injured very much by weeds, when sowed in the fall. The objection to this practice is the extra labor of ploughing, harrowing, bushing, picking stones and rolling the land twice a year instead of once. However, this is better than to sow grain and grass seed together and lose the grass seed. The loss of grass seed sown last spring throughout the United States was immense and will be felt by all classes for several years. All kinds of grass seed are very high this spring, and every precaution should be used not to have it lost or wasted by wrong management.

Seeding without Grain.

It was the high price of spring grain a few years ago that induced me to sow grass alone on a part of a field, instead of mixing it with oats. The results were so satisfactory that I have seldom put in any grain with grass seed since. And whenever I have done so I have been more and more convinced that the practice is a bad one on my farm.

With me the grass crop is of the first importance. Some farmers plough up their land in order to raise corn or potatoes or some other hoed crop. Then they seed it down for a crop of oats or barley; and if the hoed crops, and the grain leave any strength in the land, they get a few crops of grass.

With me grass is of such importance that I cannot afford to raise any grain, but plough and work a field for the one purpose of making it bear more hay. If I plant corn, it is for the fodder; and I grow as much fodder to the acre as possible. If I sow oats, they are cut green, and if I sow grass, I give it the whole land.

From many experiments I am led to believe the early fall is the *best* and most *natural* season for sowing all the grasses excepting perhaps clover, and I have been very successful with that when sowed as early as August. If it cannot be put in till later than that time I would defer till spring.

An old Bog Meadow.

I have a field of three acres now up, that was in mowing last year, cutting two very fair crops. It was ploughed last fall with a swivel plough, all turned one way and all well turned over from seven to eight inches deep. It was then thoroughly worked down with a Shares harrow, at least four times over, and

heavily weighted the last time; then a coat of stable manure was well worked in.

The field was formerly a bog meadow, and the hay was carried on shore on hay-poles. It is now thoroughly drained, and can be worked as early in the spring as any part of the farm. This spring I shall put on a cultivator and stir it up about four inches deep; then level it off with harrow and bush and sow it with two bushels of orchard grass and eight pounds of northern clover per acre, and roll it down smooth. The season now bids fair to be early with us, and I expect to get it all finished before the tenth of April. Judging from crops of past years, I shall expect to have a good crop of leafy hay to cut by the tenth to the fifteenth of July and another in September.

Loss of Timothy.

The last time it was sowed in the spring, the seed used was principally timothy. It was headed out and ready to cut the third day of July, and produced a very good crop; but the succeeding dry weather killed nearly all the timothy, and the subsequent crops have been clover and orchard grass. I do not like to sow timothy in the spring, because I have lost so much at the first cutting. If sown in the fall it spreads out over the ground and makes short jointed stems; but when sown in the spring, on good land, with neither grain nor weeds to keep it down, it runs up tall, has long joints, and does not spread out from the bottom till after it heads out. Then the mowing machine cuts it off close to the ground, and if the weather is hot and dry it has a poor chance for life.

Growth of Orchard Grass.

Orchard grass does not incline to head out the first year, but grows leaves that make the softest and best of hay for milch cows or young stock. The first crop should be cut as soon as it begins to lie down or look gray. At the second cutting the clover will have made stems, and perhaps blossoms, and add much weight and virtue to the crop of hay.

After all, I do not like to advise others to make very great changes from their usual course of farming, except on a small scale. I know what my success in seeding grass alone in spring has been, and I have so much confidence in it, that I shall continue the practice wherever I wish to put clover, redtop or orchard grass. I am sure I get more value of fodder the first year than if I sowed oats; and I am more sure of a grass crop the succeeding years. A. W. CHEEVER.

Sheldonville, Mass., March 26, 1871.

A GREAT HORSE DAY.

The Lexington, Ky., *Farmer's Home Journal* says that ever since that place was made the county seat, the April court day has been observed as an annual horse show, which has become of more importance to farmers and stock breeders of that county than any other public day, not excepting even Christmas or the Fourth of July, because of the absorbing and universal interest felt in the event it brings to pass. The *Journal* continues:—

This display is not merely for the gratification of public curiosity, nor to obtain cheap distinction for the animals shown, but it has a practical purpose to subserve—to afford an opportunity to farmers and others to inspect the fine stallions and jacks, whose services are to be offered to the owners of mares during the season.

The advantages of the exhibitions then are obvious, for a person of ordinary skill, intelligence and discernment, can form a very satisfactory opinion of the merits of an animal, after a critical inspection of all his points, and he can readily determine in his own mind, whether it is such a model as he would like to breed to.

Already, horse men are anticipating the exhibition which is to come off on next month, and from all we can learn the display will be one of more than ordinary attractiveness. There will be a great many celebrated horses shown on that day, descendants of the very best thoroughbred and trotting families of the State, and we think we can safely promise all who may attend, a most interesting exhibition. It will be a sight worth travelling hundreds of miles to witness, and the most phlegmatic individual, if a true admirer of this noble animal, will see enough to render him enthusiastic. If there be any rule of morality or policy that prevents any class of citizens from attending the "horse days" at our fairs, it cannot apply to this April show, which is free to all, and is unattended with betting, racing or any other performance, except such as may be necessary to show off the animals.

FIVE WAYS TO DESTROY ANTS.—1. Pour, copiously, hot water as near the boiling point as possible, down their burrows, and over their hills, and repeat the operation several times.

2. Entrap the ants by means of narrow sheets of stiff paper, or strips of board, covered with some sweet, sticky substance. The ants are attracted by the sweets, and, sticking fast, can be destroyed as often as a sufficient number are entrapped.

3. Lay fresh bones around their haunts. They will leave everything else to attack these, and when thus accumulated, can be dipped in hot water.

4. Pour two or three spoonfuls of coal oil into their holes, and they will abandon the nest.

5. Bury a few slices of onions in their nests, and they will abandon them.

For the New England Farmer.

OBJECTS OF AGRICULTURAL SOCIETIES.

OBJECTIONS TO THE AGRICULTURAL HORSE TROT.

The *Turf, Field and Farm's* criticism of your position on the "fast horse" question, headed *Stupid*, was certainly a most stupid defence of their pet institution.

They show that they have no claim to the last word of their title, for they speak of the farm, the farmer, and farming, with undisguised contempt. They "have nothing to do with carrots and cabbages," and agricultural societies they designate as "Green Pumpkin Associations." Evidently they have added the word "Farm" to their designation in order to catch the subscriptions of a few unwary farmers to a purely sporting journal.

But what do the farmers think of their argument in favor of the "Agricultural horse trot?" that "the fact is too plain to be contradicted that the majority of the agricultural associations are kept from bankruptcy by making their fairs attractive through the horse department." This, concludes the wise editor, is sufficient reason why the trots should be encouraged.

Perhaps if the gentleman knew what agricultural societies are for, he might have come to a different conclusion, but "the ignorance of some of the sporting papers is really deplorable." In hopes that "our city friend" may see this paragraph, we essay to enlighten him. Agricultural Societies are formed for the purpose of encouraging agricultural pursuits, by friendly competition and the dissemination of agricultural information.

The man who makes the greatest general improvement in his farm; who raises the best crop of hay, grain, or roots; who breeds and raises the best horses, cattle, hogs or sheep; is offered a small prize and the neighboring farmers are invited in to see what has been done, and be stimulated to go and do likewise. When an Agricultural Society ceases to be carried on for these simple objects, its right to its title ceases also.

Why are not "horse trots" (in the present meaning of that term) consistent with the above objects?

First: because they demand the largest premiums and the largest share of attention, thus putting true agricultural interests in a false position as being inferior instead of superior to the interests of "the turf."

Secondly: the trots create an undue excitement in the minds of the young, which being a point where difference of opinion is allowable, we will not discuss further.

Thirdly: the trots attract a low, vulgar, and vicious class of people, as well as an educated, intelligent, and respectable class of sportsmen. Blacklegs and prostitutes are not attracted by a display of agricultural products, or fine cattle, or even fine horses, unless there is a race. But we venture to express our belief that the editor of *Turf and Field* never attended a trot where there were not a large proportion of those classes with whom he would consider it disgraceful for his wife, his daughters, or his sisters to associate. Such is the feeling of the better classes of farmers, so that the fairs instead of being the resort of farmers and their families, have been gradually deserted by those who would gladly support them, were it not for this excrescence.

Lastly, we claim with the two best authorities of England and America, Youatt and Stewart, that under the practices of the Turf, the horse has deteriorated in his most important and useful qualities—strength and endurance.

Any Agricultural Society that cannot be sustained without the addition of this "element of weakness," had better be abandoned. The money obtained in this way, eats like a canker into the true usefulness and value of the societies who receive it. C. W. D.

Springfield, Mass., March 22, 1871.

For the New England Farmer.

RAISING POTATOES.

For a few years past there has been much excitement in the potato line; and new varieties almost without number, have been crowded into the market, and with what result? That the majority raise no more, and no better potatoes than before. They forget that high cultivation is the basis of all good farming, and in no crop more essential than with the potato; also that it is useless to get new varieties, expecting great results with ordinary culture.

There are different methods of preparing the ground,—indeed almost every farmer has a way of his own. Many farmers plant their potatoes on their poorest ground, and plant a large piece, as they necessarily must, to get their supply. It costs a great deal to plant and hoe and dig them, and when they are finally stored in the cellar they don't make much of a pile after all. The boys get discouraged and can't bear to work, as their backs ache trying to dig up the tough, hard, and perhaps weedy ground, and inwardly resolve when they are out from under father's thumb, that they will not be farmers.

The potato will not thrive a succession of years on the same ground, as in village gardens, &c., unless much pains is taken to prepare the ground with especial reference to that crop. Where it is necessary to plant the same ground each year, early varieties only should be planted, and as soon as ripe, say the first of August, should be dug, the ground ploughed, a heavy coat of manure spread on and harrowed in and sowed with buckwheat or clover. If we sow buckwheat it should be turned under before hard frosts, and when nearly or quite in the blow. If we sow clover,

a little scattering of oats or some kind of grain should be sown at the same time, as it will need a little shade, and should not be ploughed until the time for planting the following spring. The ground will then be in excellent condition for planting, and almost entirely free from weeds.

The potatoes can be planted in drills very thick one way, say a piece of potato once in six or eight inches. In this way a large amount of potatoes can be taken from a small piece of ground, and always of good quality; the land can be continually cropped, and yet grow better and richer every year.

Where no preparations are made beforehand and the time draws near for planting, it is a good plan to turn over a rich clover sod, if we have such to spare, and spread on horse manure, or coarse barnyard manure and mix well with the soil. We need to put on some kind of manure or we don't get much of a crop, and it is folly to go over a large piece of ground and get a few small potatoes. The quality is better if we can take land that has been highly manured the previous year, but it is better to prepare it late, than not all.

I would say to T. L. H., that it is not because we are afraid of our creditors, that we sometimes withhold our names. We suppose it is not so much our *names* as good substantial facts, based on experience, that the readers of the FARMER want. Many of us are better *farmers* than *writers*, as the editors of the FARMER must know long before this time, but we are willing to do our best, and let our feeble light shine if any will be benefited thereby. J.

For the New England Farmer.

AN EXPERIMENT ON STUNTED FRUIT TREES.

Last April I found an acquaintance at work upon his apple and pear trees, with the object in view of trying to remedy bad planting,—done by the job,—in a bad location, and half a dozen years' bad management. He had commenced by taking up some, (no small job,) and digging holes about seven feet in diameter and four deep. The soil, all but eight or ten inches on the surface, was clear sand suitable for making mortar. He proposed removing the sand and replacing it with good loam and some manure.

From this statement it can be seen what a formidable undertaking it was. Not less than two thousand large loads of sand and loam to be moved, and most of it twice; and the trees, over three hundred of them, to be carefully taken up and as carefully reset. I intimated to him that he had his full spring work before him, if he faithfully carried out his programme, and that sowing and planting would have to be deferred until another season.

He had not taken this view of the magnitude of the job he had laid out—too much even for the fifteen men he had in his employ. He came to the conclusion to adopt the suggestion to dig a trench around the trees, just within the limit of the circle formed by the branches, to the depth of fourteen to fifteen inches and about the same width, and put into the trench four inches of good manure, mixing loam with it, and fill up the remainder of the trench with the surface soil of the orchard. All the roots that were injured by digging the trenches were carefully trimmed, and all the roots remaining as carefully placed as if setting the tree for the first time.

All the trees were trimmed-in severely. They made large growth and assumed a very healthy appearance. Some of them produced fruit bountifully. They were washed twice with a solution of whale oil soap, which effectually rid them of lice and moss.

The result of these operations was highly satisfactory, notwithstanding the season was very dry. I confidently expect still more favorable results the coming season should it prove ordinarily wet, as the trees will have the advantage of having got well under way, and nothing to retard them, as was the case last season. I have tried this method before with good results, but not on so large a scale. I am satisfied we never need fear a failure from the adoption of the practice.

The orchard referred to is cultivated as a garden, and is liberally manured every season. I will also say that the trees that were taken up and set again *died*. K. O.

March 4, 1871.

STATE LAND IN AROOSTOOK.—In reply to inquiries about settling on State land in Aroostook, a correspondent of the Maine *Farmer* says;—1st, A young man must have at least fifty dollars before starting, unless he intends to work out the first season. If he has that amount he can locate, and fell five acres of trees in July, and then live with some farmer until he can get a burn; then clear it of timber in the fall ready for crops. 2d, The State lands are located principally in the vicinity of Presque Isle, Caribou and Limestone; each settler can take a certificate of 160 acres at fifty cents per acre, payable in four years in labor on the roads. He must build a house and barn, (frame or log) and clear fifteen acres, and seed ten of it to grass; then he gets his deed. 3d, In coming to this country, call at the Land Office in Bangor, and the Land Agent will direct you to such townships as are lotted for settlement. Settlers coming here must not expect to find good vacant lots on township roads; they will have to go back into the woods and live camp life for a while.

—It is estimated that there are 9,000,000 cows in the country, the dairy product of which annually is 3,000,000,000 pounds of cheese, and 575,000,000 pounds of butter.

TREES.

ORNAMENTAL AND FRUIT,—THEIR CULTIVATION,—HOW THEY GROW,—THEIR DISEASES, ENEMIES, AND USES.

SOME of the causes which have influenced our people to give more attention to the cultivation of trees, were alluded to in a recent article, in which we spoke of the effects on soil and crops, resulting from the absence of trees, and mentioned briefly some of the qualities of the River Apple.

It is not strange, perhaps, that our forefathers demolished the magnificent forests with which the soil was once clothed, as though they were a nuisance to be abated, rather than one of the richest boons which Heaven had bestowed upon our land. Their great need was not shelter and warmth,—these the forest amply provided,—it was food; the means of subsistence. In the way of these stood the giant trees of the land, filling the earth with their roots, and casting their shade over the surface, so that the plants from which they might obtain food for themselves, and upon which their cattle and sheep might subsist, were utterly unable to grow. They must have open fields, and the sun's rays upon them, or they must die. So the ancient forests fell in every direction.

After all, there was an almost inexcusable thoughtlessness in the practice of that day, and in some degree in that of the present day. When a spot was selected upon which to erect the dwelling, every bush and tree was cut away, though there may have been standing upon it trees of charming proportions, and shrubs of various kinds, which would adorn any rural cottage. Winter winds were thus admitted in full force, and the unobstructed summer sun smote the inmates of the house through the curtainless windows, until they were glad to seek refreshing shade in the adjacent forest! A single year of such experiences was sufficient to convince them of the error of their indiscriminate removal of the beautiful trees which once stood where they were now desired.

With all the light afforded by both precept and example, through several generations, against such a course, we see it adopted every year, where new settlements are entered upon and the forests are felled. A few years of annoyance and impatience are passed, and then comes the process of transplanting trees around the dwelling, or, in some cases, of abandoning it to the use of the cows, and erecting a new one where fine shade and ornamental trees will protect the house and its inmates!

By the efforts of men, and of women, too, of taste and genius, our people are arriving at a more just appreciation of the beauty, healthful influences and pecuniary value of trees, and are exerting themselves to restore to our public grounds, highways, and especially private residences, the graceful and noble trees which in too many cases have been recklessly swept away.

No people had finer opportunities than our fathers to plant their dwellings in the midst of beautiful and grand scenery. Though clearings were indispensable, they did not demand total destruction. The Indians had spared and respected the ancient forests about their wigwams, but the first settlers, with less taste than the red man, girdled and burned them, and erected their houses in the midst of the desolation. Had they selected with good taste, and preserved the noble tenants of the soil in groups, or standing singly, around their dwellings, and along the water courses, by the way-sides, and here and there on their fields, we may readily imagine how different would have been the aspect of many parts of New England.

Our work, then, so far as it relates to forest and ornamental trees, is a work of restoration. This has been vigorously commenced in many parts of the country. Nurseries exist where all forest trees are propagated from their seeds, and inclined while young into beautiful forms. Tree societies are formed in many places for the purpose of adorning public grounds and highways. Individual enterprise is surrounding our dwellings with beautiful trees and shrubs, which are giving the country new attractions. This work should be encouraged not only by every lover of beauty and nature, but by every lover of his country; for as the land in which a man is born and reared, is made attractive by his hands, so will his patriotism be increased. It is not enough that it should be engaged in by amateurs, and by the wealthy, or even by those engaged in the mechanic arts—who, greatly to their credit have taken a decided interest in

this matter in many of our villages. It is obligatory upon the *farmers*, the most numerous and the most stable class in the community; men who are interested in every product of the soil and in every improvement, should at least manifest as much interest as any other class. They can contribute to this kind of improvement more easily than any other persons. If they would retain their sons at home, and have their daughters become the wives of New England farmers,—if they would impress pictures of beauty and pleasant scenes and associations upon the minds of their children, which they shall delight to contemplate in after life, let them engage heartily and actively in this work. It is to be feared that as a class, they have shown less taste and less public spirit in regard to this subject, than might reasonably have been expected of them.

A brief reference was made in a former article on the subject of trees, to their influence upon the soil, and climatic influences generally. Until recently, these influences have been very little understood. It is quite probable that all the good offices which trees perform in the economy of nature are not yet known.

It is possible that a want of trees may cause *the droughts* which scorch the land at one time, and the floods which wash away and drown it at another, and introduce such wide and destructive changes. In a highly interesting and instructive paper, read by Mr. CALVIN CHAMBERLAIN, of Foxcroft, Me., before the Board of Agriculture of that State in the winter of 1869, he spoke of the vast changes which have taken place over the present thinly inhabited districts of western Asia, northern Africa, and southern Europe, to show, in the *gradual waste of natural forests, a corresponding change in climate.* He says:

"If we compare the present physical condition of these countries with the description of them by the ancient historians and geographers, we see the luxuriant harvests of cereals that waved on every field from the Rhine to the Nile, the vine-clad hillsides of Syria, Greece and Italy, the olives of Spain, the domestic animals known to ancient husbandry,—all these, the spontaneous or naturalized products of these fair climes, the cumulations of centuries of persevering labor,—all this wealth, has in extensive districts been surrendered to helpless desolation, or at least to a great reduction in both productiveness and population. The forests have disappeared from the mountains, the vegetable earth accumulated through untold ages, the soil of the mountain pastures are washed away; the once irrigated meadows and fields are waste and unproductive, because the reservoirs and the springs that fed them are dried up; rivers famous in history have shrunk to brooks, and the trees that protected their banks are gone; the rivulets have ceased to exist in summer, and in winter they are torrents of terrible force. The decay of these once rich and flourishing countries is mainly the result of man's disregard of the laws of nature."

Estimates carefully made in several countries of Europe, determine the proper proportion of permanent wooded surface to the entire area at 20 to 40 per cent., varying with the physical features of the country and the humidity of atmosphere as affected by neighboring water surfaces. Under our rapidly increasing population, and a proportionate demand for wood as fuel and timber in the arts, 40 per cent. of wooded surface would seem not to be too much.

Taking a comprehensive view of American forests, Mr. Chamberlain says:—"we find in California no wood for a lever or a pick-handle, better in quality than a pine limb. In the whole western half of our country no timber is grown suitable to make a carriage, a wheelbarrow, or any kind of a farm impliment! All these are supplied from the East." If this be so, how transcendently important it becomes, not only to use what we now have with the strictest economy, but to set at work at once the most active measures to re-produce more. This should be done for two reasons which vitally affect our national prosperity. First, the effect of trees upon the climate, and consequently the crops; and secondly, the great interruption in the progress of the arts from the want of fuel and timber.

Mr. C. further adds, that "to learn of the effects of trees on atmospheric humidity and the crops of the farm, we need not look to Europe or the far West. Instances are noted within our own State, where contiguous farms under different extremes of conditions, manifest corresponding extremes of results, both in fruit products and the grasses."

One of the chief points which it is important to secure in our New England climate, is to prevent an extreme evaporation from the soil. One way of securing this, is by the office which trees perform in breaking up currents of dry air which pass over the soil. All haymakers have observed that the grass dries much more rapidly when there is some wind, than it does in a still, though very hot day. The moving air carries along with it the moisture evaporated from the soil, and thus the grass dries

rapidly. In order, therefore, fully to appreciate the important influence of trees in this particular, persons must become aware of the vast work that is going on in the soil during a hot summer day.

The average amount of rain that falls in a year in New England is somewhere from 35 to 42 inches; three solid feet of water! much of which *evaporates* from the same land upon which it fell during the summer months. Especially is this the case in the open country where drying winds prevail and much land is exposed by tillage. Hence the value of forests as arresters of evaporation, or as barriers against the sweep of drying winds.

The earth is a reservoir of heat, and if the air above it be dry, the heat that is radiated from it passes off as readily as if there were no air there. But a moist air prevents its escape, and it is this provision in nature that tends to make a climate even. If this column of moist air were suddenly removed, unspeakable calamities would follow. Prof. Tyndall says "the removal for a single summer night of the aqueous vapor from the atmosphere that covers England, would be attended by the destruction of every plant which a freezing temperature would kill." A traveller in Spain relates, that in the valley of Grenada, *where the trees have all been destroyed*, the heat by day in the sun's rays was oppressive, while the hoar frost was lying white in the shade. It has been calculated, that, from an acre of ground, during twelve hours of a summer's day, more than *sixteen hundred gallons* of water have been drawn up into the air in the form of vapor!

What a charming and sublime operation is this, and yet with what quiet power accomplished! How important is this wonderful process to us as farmers,—nay, how indispensable to the welfare and life itself of all animal and vegetable existence! These performances are interworking with the action of trees. Their united agency does its part in sustaining a healthful climate and a fertile soil. Earnest investigation only will reveal them to us, and urge us to plant frequently, and liberally, everywhere, so that our children may stand,

"Amidst their tall ancestral trees
O'er all the pleasant land."

In a future paper we propose to speak, briefly, of the *rotation of forest trees*.

SOW ONLY SOUND AND PURE SEED.

The annual aggregate loss on the farms of New England by sowing unsound and mixed seeds cannot very well be estimated, but would undoubtedly be very large. It would not be confined to the first cost of the seed; that would be trifling, compared with the loss entailed upon the farmer to clear his fields of the worthless plants which have been introduced in what he has sowed for grass seeds. Thousands of acres among us are teeming in harvest time with thistles, docks of various kinds, white-weed, bur-marigold, chiccory or succory, mallows, dandelions, fireweed, buttercups, and many other vile plants. These are so hardy that no amount of moisture, short of total submersion, or any amount of heat or dryness, short of an actual blaze, will stop their growth. They are as persistent as a bull-dog, and defy all the common modes of extirpating plants. They not only rob the soil of the nutriment which the cultivated crops need, but by their hardy habits and continuous growth they soon exhaust it, so that the cost of ploughing, cultivating, manuring and re-seeding must be resorted to much more frequently than would be required if the weeds were not present.

Weeds are greatly on the increase, and will continue to be until some stringent legislative provision compels their destruction in fields and on the roadsides; and until dealers in seeds will *separate* all that come to their hands,—the sound from the unsound, and the true from the false. Some farmers, greatly to their injury, will purchase cheap seeds, and there are seedsmen willing to accommodate them. Cheap and worthless seeds are sometimes mixed with those of a good quality for the purposes of fraud. When convicted of this it ought to be a State prison offence. The only security in this particular is for the farmer to purchase from a house of character, and to pay a fair price for the article he requires.

In France, a farmer may bring suit against his neighbor who neglects to destroy thistles upon his land, or he may employ people to do it at the other's expense. In Denmark, there is a law to oblige the farmer to root up the corn marigold. Some 500 years ago, a statute of Alexander II. of Scotland was directed against that weed. The statute is short, and ably expressed. It denounces that man to be

a traitor "*who poisons the King's lands with weeds, and introduces into them a host of enemies.*"

But cleansing the roadsides and separating seeds by the seller will not accomplish the good work so long as weeds are thrown upon the manure heap. Their seeds are as tenacious of life as are roots of the chiccory plant, which we have cut six to ten times in a season for ten successive years, and in the following spring found it coming through the grass sod as though its head had never been decapitated!

The moment weeds are pulled they should be collected and burnt. If left to wilt upon the ground the plant will exert all its powers to perfect its seeds, and many of them will be so perfected as to start another crop.

The loss to the farmer by weeds choking his crops, depriving them of nourishment, and exhausting the soil, with the amount of labor eventually required for their extirpation, would be absolutely incalculable.

The person who sells seeds is inexcusable if he parts with them in *mixed* or *unsound* condition. It is not a valid excuse that he supposed they were good. He is as much bound to know that they were not mixed, as is the maker of the mowing machine to *know* that the wood and iron of which he constructed it was of good quality. He *can* know this, because machines are at hand which will readily separate a dozen different kinds of seeds, and at the same time place most unsound ones by themselves.

If this is not done by dealers, ten or a dozen farmers should combine and purchase one of Adams' mills—or some other, if a better one can be found,—for winnowing grain and separating seeds. A single machine would do the work required for twenty farms, at least. In a single bushel of rye-grass seed no less than 204,800 weed seeds were found! In a bushel of clover seed, 312,000, and this irrespective of dirt and particles of stone, which make cheap seed by far the dearest that can be purchased.

Our experience with weeds reminds us of the story of the fifty daughters of Danaus, among the heathen gods. All were married, and with a single exception, all killed their husbands! For this great impiety they were condemned to draw water out of a deep well, and fill a tub that was full of holes, where the water ran out as fast as it was put in, so that they were *tormented* with a *perpetual and unprofitable labor.*

Our doom is a similar one. We weed, and groan over the labor, and then sow the seed for future crops! Of what "great impiety" we are guilty to suffer such a doom of *perpetual* and *unprofitable labor*, who can tell?

From the Youth's Companion.

GRANDFATHER'S BARN.

O don't you remember our grandfather's barn,
Where our cousins and we met to play;
How we climbed on the beams and the scaffold so high,
Or tumbled at will on the hay;
How we sat in a row on the bundles of straw,
And riddles and witch stories told,
While the sunshine came in through the cracks at the south,
And turned all the dust into gold?

How we played hide-and-seek in each cranny and nook,
Wherever a child could be stowed;
Then we made us a coach of a hogshead of rye,
And on it to "Boston" we rode?
And then we kept store, and sold barley and oats,
And corn by the bushel or bin;
And straw, for our sisters to braid into hats,
And flax, for our mothers to spin.

Then we played we were biddies, and cackled and crowed,
'Till grandmother in haste came to see
If the weasels were killing the old speckled hen,
Or whatever the matter might be.
How she patted our heads when she saw her mistake,
And called us her sweet "chicken-dears!"
While a tear dimmed her eye as the picture recalled
The scenes of her own vanished years.

How we tittered and swung, and played meeting, an school,
And Indian, and soldier, and bear?
While up on the rafters the swallows kept house,
Or sailed through the soft Summer air.
How we longed to peep into their curious nests
But they were too far overhead;
So we wished we were giants, or winged like the birds,
And then we'd do wonders, we said.

And don't you remember the racket we made
When selling at auction the hay;
And how we wound up with a keel-over leap
From the scaffold down into the hay?
When we went in to supper our grandfather said,
If he had not once been a boy,
He should thought that the Hessians were sacking the town,
Or an earthquake had come to destroy.

How the years have gone on since in grandfather's barn
To play with our cousins we met?
Our eyes have grown dim and our locks have turned gray,
The golden, the brown, and the jet.
Yet still in my heart there's an evergreen nook,
Where childhood's sweet memories stay;
And no music to me has a charm that can thrill,
Like the voices of children at play.

FARMING A "LIBERAL PROFESSION."

In his address to the late graduating class of the Massachusetts Medical College, Rev. E. E. Hale said,—

"I am to try to illustrate those distinctions which separate what men call a craft or a trade from what they used to call and ought to call a liberal profession. * * * The simplest distinction between

a guild of craftsmen and a guild of men of liberal training is that the professor or master of liberal arts, by whatever name he may be called, mediæval or of our own time, has no secrets in his calling."

He then complimented the medical profession by saying that it "has distinguished itself in stigmatizing with every brand the meanness which would keep truth as private property."

On this principle of classification agriculture may claim to rank with the "liberal professions." Farmers have no "secrets in their calling." Though sometimes deceived and overreached by those who assume to "keep truth as private property,"—by dealers in secret nostrums, patent manures and patent implements,—farmers themselves act on the principle which Mr. Hale claims as the badge of the "master of the liberal arts" or the learned professions. In his conversation with private individuals and in his communications with the public through the journals devoted to his profession, the farmer has always freely communicated all the facts which his study of principles and his experiments in practice have developed or illustrated.

The mechanic or manufacturer may have "secrets in his calling;" he may perform some of his processes with closed doors, lest the truth which he holds as "private property" should be divulged, but the best results of our best farmers are open to the inspection and imitation of all. The columns of the NEW ENGLAND FARMER and of other agricultural papers are sufficient proof of the "liberality" of farmers, and good evidence that they have no secrets in their calling, no desire to keep truth as private property.

To this general rule we are sorry to acknowledge there are exceptions. A few cultivators of the soil would have us recede from this high position, and ask Congress to make a law recognizing the right of individuals to "keep truth as private property," to legalize "secrets in our calling," and to make the flowers of the field, the fruits of our orchards, and the woods of our trees patentable articles.

IMPORTATION OF WOOL.—According to statistics furnished by James Lynch, Esq., of the New York Custom House, the amount of foreign wool imported into this country during the past six years has been as follows:—

1870	12,470,351	pounds
1869	21,490,330	"
1868	12,319,361	"
1867	17,904,779	"
1866	36,066,186	"
1865	30,266,540	"

HORSES IN IOWA.—A correspondent of the Monthly Report of the Department of Agriculture, in Muscatine Co., Iowa, says, the raising of horses has been overdone there. We, as a farming class, have been crazy on the subject of speed, and are now reaping the fruits of our folly. Had we a number of years ago entered into the raising of horses for the farm instead of the turf, we would not have the comparatively worthless animals now on our hands—not fast enough to win nor large enough to work. The majority of farmers are, however, again raising such horses as will always find ready sale. The Percheron is meeting with much favor. Mules are almost entirely neglected. Those wanting them, in most cases, go to the neighboring section of Illinois, where they are quite extensively raised.

DISCONTENTED YANKEES INVITED SOUTH.—After giving some extracts from the late article of our correspondent, N. S. T., in relation to the decrease of population in New England, and as to the importance of a home supply of food to success in manufacturing, the *South Land* expresses the hope that the unparalleled advantages offered by the South will not be overlooked by the discontented and unsettled people of the Eastern States, and says, "here we have not only the capacity to produce an abundant supply of all the necessaries of life within easy range of splendid sites for factories; but we can and do produce the raw material for manufactures, of a quality that defies competition. Let the field and factory be brought within sight of each other, as they should be, and such elements of success are not to be found elsewhere as here in the South."

For the New England Farmer.

DEPOPULATION OF RURAL TOWNS IN NEW ENGLAND.

Although not in the habit of writing newspaper articles, the perusal of the essay bearing the above title, from the pen of N. S. T. of Lawrence, which appeared in a late number of the FARMER, made such an impression on my mind that I cannot resist the temptation of offering a few thoughts on the same subject.

And first, Mr. Editor, allow me to return my sincere thanks to N. S. T. for the excellent ideas he has so happily expressed and suggested; and which, I doubt not, will be appreciated by many a true lover of the beautiful hills of New England.

For many years I have noticed with painful feelings the prevalence of the evil of which he speaks; but as I live in more of a manufacturing than agricultural district, I was not aware that it was so alarmingly wide-spread until the census reports revealed the fact.

With the facts thus developed, no one of ordinary observation will attempt to deny the truth of the remark, that if something is not done to arrest the tide of migration, "ere long wild animals will return to their former haunts amid the hills and valleys of our dear old New England."

Allowing, as we must, that the principal decrease in our population arises from direct migration, and that too of those between the ages of twenty and thirty-five years, we are led to inquire into the causes of the migration of this class of people—a class so much needed

in all our industrial and especially our agricultural pursuits.

I will state one cause of the evil, not suggested by N. S. T. and which I do not recollect to have seen in print:—the withdrawal of capital by farmers from their business and investing it elsewhere. This operates to increase migration in two ways. First, indirectly, by conveying the idea to those cognizant of the fact that farming does not pay as well as other pursuits. If it did the farmer would not thus withdraw his means, but when he had a surplus he would increase his business correspondingly, the same as manufacturers do. Secondly, directly, by preventing him from giving employment to as many persons as he might were all his resources invested in agriculture.

Many farmers make it a point to invest a certain sum every year in bank stock, government bonds, railroad securities, or in some way entirely separate and independent of their regular calling as farmers. This prevents them from making improvements on their farms, which would give employment to many pairs of hands.

But says one, wages are so high that we must hire as little as possible, and invest our money where it will pay better. Thus men will toil early and late, through heat and cold, sunshine and storm, robbing the poor earth of everything they can, and making the least possible return; hiring only when they cannot possibly avoid it, and then getting out of the poor laborer's sinews the largest possible amount of work.

No wonder that the young, wide awake, intelligent Yankee, who feels that something besides such a life of constant drudgery is possible for him, seeks some new field for the exercise of his powers, and the enjoyment of life.

And then, does the course taken by these men have a tendency to make wages lower? On the contrary, does it not serve to raise the price of labor by driving a large portion—and that of the better class of laborers—from the country, and thus giving the few who remain, an opportunity to take advantage of the farmer's necessities, and demand exorbitant prices?

Then, again, these men have to pay much more for the amount of labor they hire performed, than they would if they employed help for a longer period. For instance a man will pay $3.00 and sometimes more per day for help to secure his hay crop, but does not think of doing anything to improve his fields, who might, by hiring for a longer time, with the same money he pays a few men in a few days, hire one man long enough at a greatly reduced price, to do with the aid of machinery, the same work that these men do, and make some much needed improvements besides.

N. S. T.'s third suggestion to prevent migration, that "for farmers who employ help throughout the year or a greater part of it, to erect neat, comfortable, but inexpensive houses upon their farms, and hire more married men," is the most practicable of any I have heard mentioned. Indeed the failure of farmers to do this in past years, has operated to drive this class of people to the west more, perhaps, than one would be willing to admit, who had never investigated nor had any experience in the matter.

Spending the first twenty years of my life on a farm, in one of the best agricultural sections of New England, and the last twenty in a manufacturing district, I can speak from experience on this point.

Marrying young, and being obliged to labor after marriage to support a family and obtain means to commence business for myself, I found that I could not do this by laboring for a farmer, as my inclinations led me to do; for I could not obtain a tenement for my family, in which they would feel respectable and be respected. Hence I must either change my occupation, or shift for some other quarter.

And my experience is not a solitary one. Thousands of men have left the service of farmers in New England for this very reason. In farming neighborhoods the Yankee girl may consent to work in the family of neighboring farmers, but after marriage she is not willing to do so. The farmer may say that it is no worse for her to "work out" after marriage than it is for her husband to do so;—no worse for her to work than it is for the wife of the farmer. True, in one sense. She is willing to work, expects to work, and glories in her strength and ability to labor. But for what and for whom? For a home of her own, and for the man who has won her love. And few Yankee men are willing to place their wives at service, or in some old tumble-down tenement fit only for bats and owls. But if a suitable home can be provided, not expensive, but tidy and comfortable, with a chance to cultivate a few flowers and perhaps feed a few chickens, she *will* labor to make that home pleasant and joyous, and her husband contented and happy. Most men so situated, will have no desire to change their situation, but will be willing to work for a reasonable price, provided they can have steady employment, year after year, being able to save a portion of their earnings every year, until they have obtained a sum sufficient to secure a home of their own; and then they will resign their position, and, with many sweet remembrances of the past, they and their family will bid adieu to their pleasant home, soon to be occupied by another, ready and anxious to secure the situation,—to go, where? To the West? I answer, *No!* I believe that a small part of families, after having been in the emjoyment of such circumstances and surroundings for a series of years, will be willing to bid a final farewell to their native hills, and break away from all the hallowed associations,

and leave all the blessed institutions of New England, to endure the roughness, hardship, and privation of a new western home.

Another good plan to be adopted by farmers to prevent the migration of farm laborers, is to give them constant employment, not only *nearly*, but *quite* throughout the year.

A few days since, in conversation with one of the most flourishing farmers in this vicinity, N. S. T.'s article was referred to, and he expressed himself as follows: "He has stated a a great deal of truth, and his ideas are very good. No one can deny that our rural districts are being fast depopulated, and this is done by migration, and something must be done to arrest it."

In reply to my question as to his opinion of the policy of hiring a few months only in a year, he said: "I think it a poor plan. I have always hired my help by the year, and those who hire only six or eight months, not only have to pay a much greater per cent. than I do for having their work done, but this course tends to reduce the number of laborers, and raise the scale of wages."

I also asked him what he thought of the course pursued by many farmers of withdrawing capital from their business. He replied: "I know it is the course taken by many, but I think it very poor policy; for it not only hinders them from making improvements which they otherwise would, but also prevents them from keeping their land in a proper state of fertility,—the soil becomes exhausted, and their farms decrease in value."

The opinions of such men, thus candidly and honestly stated, are not to be disregarded. Every farmer who can possibly do it, should give his help steady employment. In this manner a better class of laborers can be secured, for this class want steady employment at a fair price, and will not consent to the arrangement which has prevailed to so great an extent in New England, of farmers giving work to a large number of men during the summer months, and letting them "shirk for themselves" in the winter. A married man cannot do this, and the smartest and most capable single men *will* not, but will seek work where they can have constant employment.

I had thought of offering some suggestions on the different ways of giving employment to farm hands during the winter months, also comparing the actual profit per acre of Eastern and Western farming, but as I have already too much prolonged this article, I will reserve these as subjects for a future article, or perhaps more properly for the pen of some experienced and more able writer.

C. C. FULLER.

South Gardner, Mass., March 13, 1871.

—A Passumpsic correspondent of the St. Johnsbury, Vt., *Times* says those of our farmers who tapped in season, have made a good amount of maple sugar. J. P. Foster has made a pound to a tree.

For the New England Farmer.

IMPORTANCE OF GOOD SEED,

CAREFUL PLANTING AND SUBSEQUENT CARE OF CROPS.

All who cultivate the soil are interested in the matters referred to in the heading to this article. However orthodox may be the belief of most farmers on these subjects, it does not save many of them from sad derelictions of duty, if we form our opinions from what we too often see of their practice. With them seed for planting is not as a general rule selected from the earliest maturing and most perfect plants. These are laid under contribution either for the table or the market, while the later and less perfect are depended on for seed, or the seed dealer resorted to for supplies, which too often disappoint the expectations of a crop from them. It is difficult to conceive how it can be otherwise than disappointing. It is a well established fact that the earliest maturing plants will furnish seed that in turn will produce earlier plants than those that under the same circumstances required longer time to mature. But seed dealers cannot always, if they would, make a very careful selection of such plants for seed and reject all the rest, or sell their product at less cost to the purchaser. Both early and late, bad and good, are gathered together, and an average quality is put on the market. And sometimes worse than that is done, for I have been victimized with old onion seed, greatly to the debit of profit and loss account.

Good seed, however, cannot be relied upon to produce good crops unless it is carefully planted. It is often true that the seed is condemned, when the whole fault lay in the miserable manner in which it was planted. I once planted a field of beets that well illustrated this point. The drills were *all* marked out previously to commencing to drop the seed. About seven-eighths of it was dropped by hand before night and not covered. During the night and succeeding day it rained hard. On examining the portion dropped previous to the storm, I found that the seed appeared to be well covered with earth by the rain. As I was going from home, I told my men to plant the balance of the field when sufficiently dry. Without waiting till the land was dry enough they put in the seed. Contrary to my expectation, they succeeded in dropping the seed without re-marking the drills. The seed was almost on a level with the surface of the soil and was covered with very moist earth. It came up badly, and the plot worked badly all the season, while the other portion of the field, on which the seed was covered by the washing of the rain worked well, and yielded a crop at the rate of fifteen hundred bushels per acre.

Another case of loss by improper planting occurred the past season. A field of about twenty-five acres was furrowed out for corn

A dozen or more men went on to plant it, each having a pocket tied around his waist to hold the seed corn and pumpkin seeds mixed together. Some of the men were accustomed to the use of the hoe, others not. All were expected to *keep up* in some way, and they did so. After the corn came up, I went over the field and found great irregularity in the number of plants in a hill. The men were directed to put four kernels of corn in each hill. I found that but few hills exceeded that number of plants; while the hills with three, two, and *none* were largely in the ascendant. The field was not planted over, and when the harvest came it was rare that a hill having four good ears of corn was to be found, notwithstanding much the largest part of the field was good strong land, adapted to corn, and heavily manured. The after culture was much after the style of the planting. Let us suppose that each hill had been stocked with four good plants and well cultivated, might we not be justified in concluding that the increased amount of the crop *over* that obtained would have been sufficient to pay for all the labor of planting and after culture? Are we not justified in saying that the profit of raising the crop was sacrificed by this unwise course? This was my conviction at the time the corn was cut up for shocking. Let us see if the conclusion is not a just one. The corn was planted in hills 4 by 3½ feet. This gives us 3111 hills to the acre. With four good plants to each hill, and a good ear to each plant, we have 12,444 ears to the acre. As 200 ears will give a bushel of shelled corn, we obtain a yield of 62½ bushels from an acre. But as the field would not average more than two and a half ears to the hill, there was only 7,777 ears, giving us 39 bushels to the acre, or 23½ bushels less than where four ears to hill are obtained; making a large aggregate on a field of twenty-five acres, where corn is worth, as with us one dollar a bushel. The above mode of computing the yield of corn per acre, furnishes a close approximation with our northern varieties of corn.

The season was a dry one, and the frequent stirring of the soil was not resorted to, to alleviate the sharpness of drought. I tried an experiment on some broom corn, to see if I could benefit it by stirring the soil to a greater depth than usual in cultivating it. It had been wilting for some time, during the middle of the day, and the bottom leaves had died. I experimented with six rows, stirring the soil of two rows three inches deeper than that of the other four rows. All were alike when the experiment commenced, and all were hoed weekly. The hoeings were kept up through the season. In a few days after the soil of the two rows were stirred deeper, they began to show signs of increasing verdure and vigor. At harvest time they were about a foot taller than the other rows, and the straws much better in size and quality. This experiment serves to confirm what has been demonstrated so often as to the advantage of deeply stirring the soil during the continuance of a severe drought. Our western corn growers understand the profits of this practice if we are to judge by the *old saw* in use there, viz: "*in a dry time rush the plough.*" The plough is in general use there for working among the corn.

Feb. 25, 1871. K. O.

CROPS IN THE CONNECTICUT VALLEY.

From an essay on "the crops for the farmers of the Connecticut Valley, their profit and effect upon the land to be taken into consideration," by A. K. Warner, read before the Franklin, Mass., Harvest Club, Feb. 25, 1871, and printed in the *Homestead*, we make a few extracts:—

First, let us inquire why it is that corn has almost left the Connecticut Valley. Ask your neighbor—he will tell you that he cannot afford to raise corn at the present high price of labor. Let us consider for a moment if this answer is correct. In my observation, the average yield of corn per acre now, is about thirty bushels—ten years ago it was about fifty bushels.

I am fully persuaded that the raising of corn in the Connecticut Valley can be made as profitable as any other hoed crop, when the effect upon the land is taken into consideration. I am aware that I differ with a great many wise farmers. I would not advocate making corn a specialty, or any one other crop; but is it not a fact that the tobacco crop of this Valley has been made a special crop for the past ten years, to the detriment of the corn crop? First, by taking all the farm manure to grow the tobacco, and the best soil, while corn has been second in importance, and planted on the poorest land, without manure; consequently, the yield of corn is very small—hence the common remark, "we cannot afford to raise corn."

Now, then, what crops can be raised profitably, when we consider their effect upon the land? It seems to me that the grass crop stands first in profit to the farmer. Here let me say, in connection with this subject, that a wise farmer will put each of his acres to the production of what it is best adapted to produce. And, with the variety of soil that this valley contains, the question is at once settled that we cannot make a specialty of any one crop, and add to the value of our entire farms. Consequently, a large portion of what we now receive for tobacco, is taken from the value of our farms.

The farmers of the Connecticut Valley, when receiving the money for their tobacco, actually receive a portion of the principal invested in their occupation, and are too apt to

consider it all profit. For while ten acres are being made rich for the cultivation of tobacco, the remaining ninety of an hundred acre farm are gradually growing poorer. I now have in my mind a farmer that has fifty acres of land. He is obliged yearly to apply all the manure he can make from the produce of his farm to two acres of tobacco, consequently forty-eight acres of his farm is yearly cropped without returning anything to enrich the soil; or, in other words, cropped to enrich two acres of tobacco, thereby drawing from the value of forty-eight acres of his farm and putting it in his pocket. But suppose this farmer should change his plot of two acres every year for five years, that is as long as the first two acres will yield a good crop of anything without again applying manure. In this case he can only enrich ten acres of his fifty, the remaining forty must necessarily be growing poorer.

The tobacco crop returns the least to enrich the soil of any product raised upon the land in the Connecticut Valley. This one fact is enough to convince me that all our farmers are raising more tobacco than is profitable, or beneficial to the farms in this valley.

In determining which crop to raise for feeding on the farm, we must not merely ask the simple question, which crop will afford the most nutritious matter, or bring the most ready money, but which will ultimately be most profitable, taking into consideration the effect of its growth upon the soil, its value as food, and the value of the manure made by its consumption on the farm.

Many farmers think manure is manure, no matter how it is produced. If the elements which make rich manure are not in the food, they will not be found in the manure, however carefully it is preserved or composted. Now, if the relative value of manure obtained from the consumption of a ton of clover hay is worth half as much again as a ton of meadow hay, (I think this true everywhere) this fact should be taken into consideration with reference to this question. It has been proved that a ton of Indian corn fed to farm stock is not worth as much for manure as a ton of clover hay fed to stock. A ton of oats is worth more for manure than a ton of Indian corn feed.

Oats can be raised with less labor than any other grain crop, and will thrive on a great variety of soils. They require less labor in planting and cultivating than corn, and are sown to a considerable extent on this account; but, as a general rule, the oats are obtained at the expense of the succeeding crop, while Indian corn leaves the land cleaner and in much better condition for future crops. With our improved horse hoes, there is no excuse for those farmers who neglect to keep their corn land mellow and entirely free from weeds. When this is done we can in ordinary seasons, and on the majority of soils, be sure of a good crop of corn. Repeated stirring of the soil would not only destroy the weeds, but would make the soil moister in dry weather, and increase its fertility, besides leaving the land cleaner and in much better condition for future crops. We must consider also that one acre of good corn fodder is worth as much to feed our stock and make manure as an average acre of meadow hay.

There are many other grain crops well adapted to the soil of the Connecticut Valley, such as wheat, rye and barley. Of these, rye will succeed best on the driest and poorest soils. It will grow where wheat, barley, oats and Indian corn would fail. With the aid of a little manure it can be grown year after year on the same soil. It is exceedingly grateful for manure, and its application to this crop is quite profitable, especially in localities where the straw is in demand. Barley can, I think, be raised in this valley profitably. For the past ten years barley has brought a higher price than wheat, pound for pound. Where the soil is well suited to its production there are few crops more profitable. I believe that three bushels of barley can be raised with as little expense as two bushels of wheat. Finally, the soil of the Connecticut Valley is good for nearly every kind of grain.

Now, then, when we take into consideration the effect the various crops have upon the land, we cannot afford to raise tobacco alone. Every real, practical farmer, should raise everything for the support of his family that he can without actual loss, for it often happens that the season may be a very bad one, for one crop, and an excellent one for another. And again, a variety of crops can be raised much cheaper. First, because a variety will not impoverish the soil as much as one crop.

Here it is proper for us to take into consideration the relative value of manures from different foods; also to determine what particular feed is best to give our farm stock. These two questions deserve to be profoundly studied by every farmer.

ROOM FOR SURPLUS HONEY.

In the "Annals of Bee Culture," Mr. William Carey says: I have had a single colony of bees store away sixty pounds of nice surplus honey in twelve days. Now, if I had neglecto furnish that colony the necessary arrangements for storing surplus for six of those days, the product would have been only thirty pounds; if the neglect had been continued twelve days the result would have been, no surplus, which would make a difference of $18. There cannot be too much importance attached to giving bees plenty of room to store surplus, and that at the right time.

Some may ask, when is the right and proper time to give their bees a chance for storing in boxes? In answer to such a question—it is the right time when your bees become numerous enough so as to occupy all their combs in

the body of the hive. As soon as one box or a set of boxes are filled, remove them, and put empty ones in their places. I have often been told if we manage in this way we shall get no swarms. I think differently. Supposing you do not get so many swarms—which I think you will, or nearly as many—you will get a large amount of surplus honey, which you can readily turn into cash, and make bee-keeping a profitable and pleasant business.

In conclusion, I would say, use the best movable comb hive; have everything nicely arranged about your apiary; perfectly understand your business, and you will find bee culture both pleasant and profitable.

EXTRACTS AND REPLIES.

THE TITLE OF FARMER.

When men are subjected to as rigid examinations before they are called farmers, as they must be before they are called lawyers or doctors, then, and not till then will farmers take the rank to which they are entitled among the professions. Would you affix "M. D." to the name of one who had spread a plaster or moulded a box of pills, but who knows no more of medicine or the human system than that? If you would not, why call a man a farmer who knows no more of the profession than may be known by loading a cart with manure, or holding a plough to turn it into the soil? Q.

New Hampshire, March, 1871.

REMARKS.—Perhaps the most practicable means to accomplish the object proposed by our correspondent would be to get some congressman to move his proposition as an amendment to the Civil Service Bill, providing that the same commission which decides the qualifications of candidates for public service shall also rigidly examine the fitness of those who aspire to the rank and title of farmer. This is an age of progress, and a process that shall assort men, as our best winnowing mills do grain and seeds, may be invented and brought into practical use, and thus save much time over the old practice of testing and knowing them by their fruits.

THE BUSSEY FARM.

Is the "Buzzy" Farm alluded to by you in the FARMER of last week the same as the Benj. Bussey Farm, or is it some new establishment?

E. COOPER.

Winchester, Mass., March 8, 1871.

In connection with notices of Percheron horses, Jersey cattle, &c., I have frequently seen the "Bussey Farm" mentioned. At the time of establishing the Agricultural College I remember it was also spoken of. Can you give some information as to the history and present condition of this property? What is the Bussey Farm? G. W. P.

Worcester County, Mass., March 12, 1871.

REMARKS.—Our Winchester friend is probably criticising a typographical error. "Buzzy" was a misprint, and our allusion was to the Benj. Bussey Farm. Though not claiming to be well posted on the subject, we will say, in reply to "G. W. P.," that we understand that what is known as the Bussey Farm, is part of a large property, including several valuable city estates, that was willed by Mr. Bussey to Harvard College, on certain conditions,—one of which was the establishment on this farm of an agricultural college or school,—which conditions the college accepted.

We understand that of the income of this fund, one-fourth was appropriated to the Law School, one-fourth to the Divinity School of the college, and one-half to the establishment of an agricultural branch or school, on the Bussey Farm, at the expiration of a life lease vested in certain children and grand children of Mr. Bussey, the last of whom we understand is the wife of the present occupant, Hon. Thomas Motley. Though the college has not as yet obtained possession of this farm, we understand that the Trustees have made arrangements with the occupants, by which they are soon to erect a building for a laboratory, as a beginning of the proposed agricultural school, in connection with Harvard College. Ample means for this commencement have been accumulated from the income of the fund above referred to. Hence Massachusetts is to have two agricultural colleges. Gov. Andrew, it will be remembered, earnestly advocated the union of the national fund for the establishment of an agricultural college with this fund thus previously vested in the corporation of Harvard College by Mr. Bussey.

CATTLE GNAWING BOARDS.

It seems to me as though people were rather diffident about advancing any ideas with regard to the cause or cure for cattle gnawing boards; and I have been thinking that I would give the ball a start, hoping that some one will keep it moving till something definite is ascertained.

About nineteen years ago we had a very dry summer. There was but little more than one-half the usual amount of hay cut, which was principally done by hand. The grass was filled with a gum that would stick on the scythe near the edge when the grass was dry, and it was necessary to either wash the scythe or scrape the gum off with a knife occasionally in order to have it cut well. The grass required but little drying, and it made solid, hearty hay, of which but a trifle more than one-half of the usual amount, in bulk, was required for a foddering. The pastures, too, were very dry, and in some instances cows were fed with hay in haying time; a thing not very often done in this vicinity.

In the fall cattle come to the barn hungry for sticks, boards, bones and in fact almost anything they could get hold of. The colts were as bad as the cattle. The marks then made by their teeth can be now seen on the timbers in the shed where they run that winter. Salt, ashes and dirt were given to them, but did little or no good.

The past season, although not equal to that nineteen years ago, was very dry. The hay is well filled with gum, is hearty and spends well. When cattle came to the barn last fall they would eat a piece of board with as much relish as a dog does a bone.

Sometimes a cow will be lame in a dry summer, and have what is called the bone disease, for which bone meal is highly recommended; but I think that is some like the prescription of the doctor who recommended his patient to eat hearts, because he had the heart disease.

Now it seems to me that the cause of all these difficulties must be the want of some quality or

property that the grass fails to receive either from the atmosphere or the soil or both, from want of the usual amount of rain. If there is some property lacking in the grass or hay of a dry season, cannot some one tell us what it is, and how it may be supplied? I have been feeding part of my stock for about four weeks with turnips and potatoes mixed together, with good results; and if they should come to the barn another fall with an appetite for the barn-yard fence, &c., I shall give the turnips and potatoes a trial to commence with, unless some one can recommend something better.

Cabot, Vt., March 7, 1871. C. M. FISHER.

MAKING WINTER BUTTER.

A few years ago it was my good, or rather *bad* luck to have a few cows giving milk in the winter. As there was no sale for milk we had to make butter. Our method was to strain the milk in pans, and set them on the top of a kettle in which water was boiling, and let them remain till the cream began to wrinkle, then put the pans in a closet where milk would not freeze, let it set forty-eight hours; then skim, stirring the cream as we skimmed each pan. When cream enough for a churning was collected, we put scalding water in the churn, let it remain a few minutes, poured it out, and put in our cream, usually churned 15 or 20 minutes, and always had good butter. We always brought our cream dish into the room where we kept fire, and let it remain two or three hours before churning.

Our feed was corn meal and good hay. Have tried oil cake (flax seed) and always had oily butter. With cotton seed meal have had excellent butter,—firm, sweet and good color. We simply tried the two kinds of feed for a short time as an experiment. We got more milk and better butter from the cotton seed. SENEX.

Cumberland, R. I., Feb. 20, 1871.

OPIUM FROM THE POPPY.

I see that "E. N. S." makes inquiry in FARMER of February 4, concerning the proper manner of gathering opium from the poppy. Allow me to make a few suggestions which the facts will bear out. The best opium of commerce is gathered from the Turkey or Smyrna poppy, which has been introduced into this section. In general appearance the plant cannot be told from that growing in Turkey; but the opium prepared from it contains only about one-third or one-half the proper per centage of morphia, and is very deficient in the other properties of the true opium. The seed has commanded very high prices, as high as $40 per ounce. But I believe the acreage is diminishing rapidly, and I think will be among the things of the past soon. JONES.

Vermont, March 7, 1871

WINTER CARE OF STABLE MANURE.—PLOUGHING IN MANURE.

Nearly one-half of my hay is consumed by sheep, and it is my practice to keep stock housed most of the time in cold weather. My horses and cattle occupy one side of the barn, and their excrements go into the cellar under them. Several times in the course of the winter and spring the accumulations of the sheep pen are thrown into the same place. My hogs have access to this manure pen and aid materially in working over the contents. The whole is forked over once at least and mixed say with one-third its bulk of loam; this is usually done when the weather is unsuited for out-of-door work. By this course of treatment the whole mass becomes thoroughly pulverized without being excessively heated. I am aware this does not advance spring work like drawing manure into the field; but I think it affords a better opportunity for putting it in the best condition to use, and on this account may meet the wants of some farmers.

A word in regard to the application of stable manures. Some years since in preparing a small piece to seed down with wheat, one-half the plot had manure under a shallow furrow, the other half upon it, well harrowed in. Care was taken to have the dressing uniform both in quantity and quality. But, unlike your correspondent of Wilmington, Vt., I found a marked difference in favor of that portion of the field where the manure was ploughed under, both in the wheat and grass crops which followed. I do not call in question his general conclusions, but this experiment convinced me that under some circumstances barn yard manure will do more good a little below the surface. H.

North Weare, N. H., 1871.

DRYING AND CANNING SWEET CORN.

Will the FARMER or some of its correspondents have the kindness to give the best method of drying and canning sweet corn for winter use?

Wellesly, Mass., March 11, 1871. C. B.

REMARKS.—We have had no experience in canning sweet corn, as we have been well satisfied with our process of drying it. Late in the season, or whenever the corn is plenty and cheap, our folks boil a good kettleful at once, cooking it as for table use. Then cut the kernels from the cob, place them on tins and dry them by the stove. They might probably be dried in the sun, but we have not tried that way. When sufficiently dry the corn is tied up in cloth bags to keep out insects and kept in a dry place.

To prepare it for breakfast, if there is plenty of milk and no danger of its souring, the corn is soaked in cold milk over night. But if there is danger of the milk souring, it may be heated before pouring on the corn. If milk is scarce, the corn may be soaked in milk and water, or even clear water. Milk, however, adds much to its palatableness. In the morning it is put on the stove and warmed, then buttered and salted to taste.

THE SEASON, SUGAR, STOCK AND CHEESE FACTORY IN MAINE.

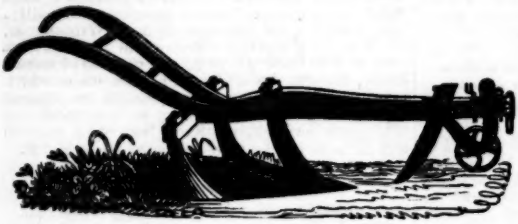
The season in Franklin County Me., is some three weeks earlier than in former years. There has been but little snow, not over a foot in the woods, scarcely enough to accommodate the lumbermen, and that is about all gone. Wheels are run through to the lakes. Sugar makers are on their taps, and maples are yielding bountifully. The weather is very mild, promising an early spring and lengthening out the hay mows.

People in this section pay particular attention to stock raising, of which many fine specimens are exhibited. Butter and cheese are of secondary importance, while in fact they should be first and foremost, as more ready money can be realized therefrom than by any branch of farming. There is a movement on foot in the town of Strong to inaugurate a cheese factory. A company has been organized and officered and site located, with a capital stock of $50,000,—shares at $50 each. Farmers are taking hold with a will that insures success. Strong is on the Sandy river, twelve miles north of Farmington, the terminus of the Androscoggin railroad, and is surrounded by a good farming country which will afford every facility for the successful operation of an enterprise of this character.

Farmington, Me., March 18, 1871. ZEN.

PARING PLOUGH.

Please inform me if you know of any machine for cutting hassocks or bogs. I found a copy of the *Working Farmer* for 1850, which spoke of a machine for cutting bogs, invented by Dr. Paul of Belvidere, New Jersey, which would do the work



of over twenty men, having one man to manage the machine and a boy to drive the oxen. The editor promises to give a description of the machine in the next number. W. R. VILAS.

Burlington, Vt., March 22, 1871.

REMARKS.—We find by referring to the volume of the Working *Farmer* for 1850 that the cuts of Mr. Paul's Hassock Cutter were published on page 139. It represents what we think would be a costly and unwieldly implement, which we cannot well describe without the cuts. It has a bottom plate or cutter four feet wide, with upright cutters from each front corner of this bottom plate which is concave, so that an idea of Mr. Paul's machine may be formed by supposing the team to be hitched to the rear of the plough or parer above illustrated.

This illustration represents a plough for paring turf lands preparatory to burning, manufactured by the Ames Plow Company. The forward cutter seen in the illustration is not now applied, as the parer has been found to work better without it. The share is thin and flat, made of wrought iron, steel-edged. It has a lock-coulter in the centre, and short coulters on the outward edge of each wing of the share, cutting the turf as it moves along into two strips, about one foot wide, and as deep as required. Men follow with sharp spades, and cut these strips into suitable length, say of two or three feet. These pieces are then thrown into heaps, and after drying they are burned, and the ashes spread broadcast on the land.

Other manufacturers have adapted ploughs to similar work, but we do not know of any now for sale specially designed for cutting hassocks.

BUTTER MAKING.

The diversity of recommendations that have recently been given in the FARMER for making the butter come, have amused me not a little, and at the same time reminded me of the doctor who was in doubt as to the disease of a patient and gave him a mixture of all the medicines in his saddle bags, hoping that some one or more might hit his case. But as in the multitude of counsellors there is safety, I will give in as few words as possible our process of butter making.

For over two years past we have churned once a week in winter and twice in summer, and have not exceeded twenty minutes in gathering the butter at any time. This winter it has not taken over ten or twelve minutes at any time, generally it has not exceeded six or eight.

For the week ending February 24, the milk drawn from a two-years-old heifer and from her mother, both full-blood Alderney, was weighed when it was strained into the pans, and an exact account of each mess was kept. The milk amounted to 126 pounds and 7 ounces; one quart of which weighed 2 pounds 7 ounces. The cream was separated from the milk so as to retain as little milk with the cream as possible; about one-half of the cream was put into a dash churn. In less than four minutes by the watch after commencing to churn, the butter was gathered. The cream on the lid was put down and dashed three minutes more, which finished the churning. The other half of the cream was six minutes in gathering. The whole was put together and salted one ounce to the pound. In the afternoon the butter was thoroughly worked over and put into pound lumps. There were eight pounds and ten ounces of hard solid butter. The working was all done with white oak spatters. Not a particle of water, saltpetre or sugar is ever applied to our cream or butter under any circumstances whatever, believing they could not benefit but would greatly injure the flavor. Eight pounds were churned to-day in six minutes.

Corn, rye and oat meal with wheat shorts, are given to the cows with a little salt once a day, with good English hay cut early. W. ADAMS.

Swanzey, N. H., March 3, 1871.

HOW TO LOAD A WAGON.

Having read the article under the above heading in the FARMER of March 11, may I be permitted to "elucidate" the matter from a practical point of view. Granting that, philosophically, the reasoning of that article is correct, the deduction that a wagon should be loaded heaviest behind may not be so.

Every teamster should know that the closer the team can be got to the load the more they can draw; also, that a very long wagon is objectionable. From my own experience, I think the consideration of distance overbalances the philosophic one. May I suggest to any reader of the FARMER who owns one, a dynamometer trial?

Meanwhile, if any one wishes to see whether science and practice agree, let him repair to the foot of a steep hill with his team, and load them to their full capacity, putting five-ninths of the load in front and four-ninths behind; then draw it up. Afterwards, let him try the same load five-ninths behind, and I think he would get a dislike to that manner of loading.

HUNGARIAN GRASS.

I hope the readers of the FARMER will not be deterred from trying Hungarian grass by the unfavorable experience of a late correspondent. I have no hesitation, after three years' trial, in recommending it as the best crop a dairy farmer can put on old ground well manured. When well cured it is eaten with great relish by both Massachusetts and Illinois cattle and horses, but is rather too coarse and stemmy for sheep. Should not cut it till after blossoming. F. L. SANDERSON.

Petersham, Mass., March 11, 1871.

LOSS AND SUPPLY OF PHOSPHATE.

The hills of New England have become exhausted of their phosphate by the continued sale of the bones of our farm stock, without the return of its equivalent to the soil. Consequently our

fields that once produced timothy and clover now only produce white top. So far as my knowledge extends the general complaint year after year, is that the white top increases. Now this can be remedied only by restoring the phosphate again to the soil. Nature's laws cannot be violated with impunity, for the sins of the fathers will speedily be visited on the children to the third and fourth generation.

BRADLEY'S XL SUPERPHOSPHATE.

Last season I purchased two barrels of Bradley's XL Superphosphate and applied it to different crops with the best results. Three dollars' worth applied to about one-third of an acre of sod land broken the fall previous, and sowed with half a bushel of wheat, without any other manure, produced a fine crop of wheat as ever I raised. Its phosphoric acid probably furnished the material for a full and plump berry, besides forwarding the crop some six days—quite an item in many seasons. I also used it on beans, sweet corn, onions, cabbages, and most garden vegetables, with fine results,—forwarding the crops a full *week*.

To produce the largest crop of wheat to the acre, I should, with the light I now have, sow 300 lbs. of Bradley's XL, covering it immediately with the harrow after sowing the seed, for it will not bear long exposure to the air without loss of some of its valuable qualities which may escape into air. I have bought again this season more than I did last, and am going to use it in the same way, believing that with it our *hills* can be covered with beautiful *crops* of *grain*.

Now Mr. Bradley is a gentleman personally unknown to me. I have no interest in the sale of the Superphosphate. I make this statement in justice to a valuable manure, which if kept up to the standard of that made last year, will in my opinion prove a lasting benefit to New England.

D. L. HARVEY.

Epping; N. H., March, 1871.

EARLY SPRING.—CANKER WORMS.

It is hard for us to realize that spring is here. March seems to have forgotten how to reign, and instead of cold winds and driving snows, we have warm sunny days, and singing birds. More than a week ago the robin heralded the coming of spring from the tree top; the blue bird caroled of it in the vale; and the swallow twittered it from the eaves of the friendly barn. Already the farmer is turning the cold damp soil up to the sun and air, and the impatient ones are planting peas in sunny spots. The bark upon the peach and pear trees begins to brighten up, and the buds upon the lilac are large and full. The grass is showing green in many places and the roads are fast becoming dusty, not having been nearly as muddy as usual. Wild geese have been going by, sounding their curious note out upon the air, but generally keeping themselves out of sight. The Merrimack has been clear of ice nearly two weeks. It went out very quietly, without any rise of water, but within a few days a slight freshet has disturbed its smooth flow, and some drift wood has floated by.

Such skating as there has been upon its frozen face the past winter, has not been seen here for years, and the boys mourned bitterly as their favorite play-ground slowly drifted out to sea. Two or three unpretending ice boats made their *debut* during the season. Four or five boys performed the feat of skating to the city of Haverhill and back again in half a day, a distance of eighteen miles, stopping there two hours or more—pretty well for boys, the youngest being only eleven. Many obstructions have been removed from the river within six months, and the good work is to be continued this spring. Navigation will thus be much improved and its blue waters will be parted by many vessels and boats.

There is much fear felt among us, that the canker worm has found its way across the river from West Newbury, where it has made fearful ravages in years past. Farmers that have tarred their trees or used printer's ink report the going up of the moth a number of days ago. Is it not very early?

The season is not quite far enough advanced to ascertain the prospect for fruit, but let us sincerely hope it will be good, and that the canker worm may be kept away from us, for it is a sad sight to see fair orchards blighted as by the scorching tongue of fire.

J. B. SAWYER.

West Amesbury, Mass., March 18, 1871.

CLUB-FOOT IN CABBAGE.

I wish to inquire whether there has been found anything that would prevent the small white maggot from eating the roots of cabbages, and thus cause them to clump-root.

H. C. C.

Wareham, Mass., March 3, 1871.

REMARKS.—Mr. Henderson says in his book on "Gardening for Profit" that on land along the seashore where there is an admixture of oyster and other shells, cabbages are raised in the highest perfection, and that on such soils they have been raised, in some instances, for fifty consecutive years perfectly free from any club-foot. It is supposed that the lime in the soil resulting from the gradual decay of the shells, is fatal to the larvæ of the insect which produces the disease in the roots of the cabbage. The same gentleman gives an experiment he made in growing cabbages on a lot, one-half of which was heavily manured with stable manure, the other half with flour of bone at the rate of 2000 pounds to the acre. On the manured part the cabbages were badly affected; on the part to which the flour of bone was applied the plants were healthy. He has also used lime. This was expensive and only partially successful. Cabbages should not be grown two years in succession on the same land. Leached ashes have also been recommended—a dressing "one inch thick" well spaded in. But we hope friend C. will not ask us to tell him where he is to look for the ashes, for we don't know. But these are among the things that "have been found" to prevent the club-foot, and we give them for what they are worth.

CATTLE EATING BOARDS.

Though not in the habit of writing for any paper, I will try to relate my experience with this trouble with cattle.

Some forty years ago I purchased a small farm of twenty acres that was badly worn out. It was part sandy, part swampy, with plenty of bushes. The pasture was plain land and bushy. I cut about four tons poor meadow hay. My cattle did well until I subdued the bushes in the pasture. Soon afterwards they commenced eating boards, &c., and become ravenous for pine boards. The barn was an old one, and some of the boards loose. These they would tear off with their horns, and chew them up. This continued till about eight years ago. At that time I bought a pasture of new land, including some ten acres of wood and about six acres of land from which the wood had been removed. A part of this lot was bushy and some of it was low, damp land, with wild grasses, and

many other kinds of grasses coming in on the new land, on which with the aid of the cattle I am trying to keep down the bushes. I find they eat the young shoots with great relish, and they have not troubled me since they had this range by eating boards. In the winter I feed clover and other hay, including water grasses, wheat, rye and oat straw, and corn stalks.

Hence I conclude that if cattle have a variety of feed summer and winter, and the browse of wood or sprout land they will not trouble any one by "eating up the barn." M. L. GODDALE.

South Amherst, Mass., Feb. 27, 1871.

REMARKS.—The first effort of our correspondent is so successful,—his statement of facts so clear, and his conclusion so natural,—that we hope he will write out the "many things about farming" to which he alludes in a private note. We wish to make our columns a sort of Farmers' Exchange, or Club, where practical men can talk with their pens in the same every day, practical manner that they do with their lips when neighbor meets neighbor.

HOUSING CARTS AND WAGONS.

My object in stating how long my ox wagon had run, was to show the utility of housing carts and wagons used on the farm. As Mr. Denham has expressed the opinion that my wagon must have been *housed* most of the time, I will state how it has been used.

For the first thirty years it was used about one-half of the time when the ground was bare. At that time my cart wheels got worn out, and I had a set of new wheels made for the wagon that were four inches wide,—the first ones being five inches wide. Then I took the old hind wheels of the wagon for the cart, and the fore ones to draw timber and logs on, and have used them up to this time in heavier work than I did when they were on the wagon.

If Mr. Denham's wagons will not wear but fifteen years, they have poorer timber or poorer workmen in Plymouth County than we have in Essex, or the land on which they run must be different. I know of none in this vicinity that have worn out as soon as his did.

To have farm carriages last long the farm buildings must be on dry ground, and the carriages kept on a floor in an open shed protected from the sun and rain but not from the air. It is true that my wagon wheels have not been used every day, but one of the shrewdest old gentlemen in town, Moses Parker, Esq., told me that the wheels if used every day, and properly cared for, would last a hundred years. E. ROLLINS.

Groveland, Mass., March 21, 1871.

CANADA STEERS.

The notice in your paper of a fine pair of steers raised by Mr. Swan, of Worcester, Mass., induces me to give you some account of a pair of steers raised by a Mr. Reed, a neighbor of mine who has a herd of high grade Short-horns. These steers were dropped July 19 and 20, 1868, weighing at their birth, respectively, 103 and 119 pounds. June 7, 1870, when less than two years old, they weighed 2340 pounds; September 8, they weighed 3160 lbs.; and on the 13th of the present month, 3556 pounds, and girthing 7 feet, when only two years and eight months old. A SUBSCRIBER.

Ulverton, P. Q., March 16, 1871.

CATTLE EATING BOARDS.

Having seen ashes recommended for this trouble, and finding that my cattle had the habit this winter, I put two or three handfuls of ashes in the manger of each cow occasionally, and let them eat as they please. It seems to have cured them of this habit. P. S. PAINE.

East Hardwick, Vt., 1871.

SANFORD HOWARD, ESQ.

The death of this gentleman, which occurred at Lansing, Mich., March 9, was briefly noticed in our columns at that time. Few men were better known by the farmers of the Northern States than Mr. Howard. We are indebted to the Lansing *Republican* for the following facts in relation to his life and labors.

Mr. Howard was born in Easton, Mass., in 1805, where his only advantages of early education were those of the common school. He remained on his father's farm until 1830 when he married and removed to Hallowell, Me., to manage a farm for himself. In 1837 he removed to Lanesville, Ohio. Leaving Ohio in 1843, he became associated with the Albany *Cultivator*. In 1852 he became the agricultural editor of the Boston *Cultivator*. In 1864 he accepted the position of Secretary of the State Board of Agriculture of Michigan, which has the supervision of the agricultural college at Lansing, at which place he has resided since his removal to Michigan.

While in Maine he became a leading contributor to the Maine *Farmer*, and whether in Ohio, New York, Massachusetts, or Michigan his contributions to the leading agricultural papers were numerous, and always dignified and able.

In 1857 he was employed by the Massachusetts Society for the Promotion of Agriculture, and several wealthy gentlemen of that State, to go to England, Scotland, Ireland, and France, for the purpose of selecting and importing the best specimens of cattle and horses of several breeds. The next year he again crossed the Atlantic and purchased for H. H. Peters twenty or more Ayrshire cattle, the best that could be selected in that country. He also bought a small herd of Derry cattle in Ireland for A. W. Austin of West Roxbury, Mass., a Cleveland stallion for Dr. J. Woods, Richmond, Va., &c. During these trips he had the opportunity of examining the best stock in the old world, and, from this time to the close of his life, became a standard authority on blooded stock. In the winter following his return from Europe, he edited the first volume of the "American Devon Herd Book."

During his connection with the State Board of Agriculture of Michigan he has written and compiled the Annual Reports of the Board, and many of his papers have been widely quoted and highly commended. For several years, and up to the time of his death, he edited the Agricultural Department of the Lansing, Mich., *Republican* with signal ability. He has delivered several lectures before agricultural societies, and once lectured to the students of Yale College, upon horses.

One of the latest important labors of his life was

acting as chairman of the committee appointed by the New York State Agricultural Society, in 1870, at Utica, to decide upon the relative value of agricultural implements other than mowers and reapers. He was also a member of the committee of the U. S. Agricultural Society at the trial of mowers and reapers at Utica, in 1857, and served upon a similar committee of the N. Y., State Agricultural Society, at Auburn, in 1866.

His funeral services were held in the Hall of Representatives, and President Abbott of the Agricultural College pronounced a fitting eulogium of the moral and mental qualities of the deceased. He was alluded to as a man of great purity of soul and purpose, and one who possessed a high-toned religious faith and trust. The Michigan *Farmer* closes a notice of the death of Mr. Howard with the following sentence:—

Mild and quiet in manner, and studious in habit, he was not one that acquired wealth, and while he helped others and became interested in their labors; he was not selfish, and derived but little benefit from his labors beyond the satisfaction of knowing that he had aided in the increase of a correct knowledge of the practice and principles of agriculture, and that he had done something to render it a nobler pursuit than it was when he first entered upon its study.

SOWING FLOWER SEEDS.

A taste for the cultivation of flowers, both indoors and out, has been gradually increasing for several years past. Very many of the farm houses are now graced with the presence of cultivated flowers, as well as those of the villagers and city people. That they have a wholesome and refining influence, in many respects, none will doubt.

We cannot now, however, be enticed away by the charms of the subject from our purpose, which is to say what our experience has been in relation to the *sowing of seed for flowers.*

Quite one-half of all the flower seeds sown, we have no doubt, never come up. The reason for this is imputed to bad seed. No doubt but there is abundant reason for complaint on this score, but the disappointment arises as often from mistake in the manner of sowing as from all other causes combined. Most flower seeds are quite small, and consequently perish quickly if in ground which is too moist. On the other hand, if they lie too near the surface, and exposed to the direct rays of the sun, they soon lose their moisture, and with that their power of germination.

Time of Sowing.—This will depend in the first place upon the condition of the soil. There will be a difference in seasons of two weeks in this particular. The hardy annuals, such as asters, larkspur, clarkia, candytufts, &c., may be sown in April, during the first half of the month, some seasons, but generally with greater success during the last half of the month. The half hardy, such as will not bear a hard frost, as the balsam, marigold, cockscomb, &c., ought not to be sowed in the open ground sooner than from the first to the last of May.

By observing these rules, we have succeeded in getting fine flowers of the tender annuals, such as the cypress vine, sensitive plant, ice plant, &c.

Preparation of the Soil.—When this is sufficiently dry so as to fall to pieces upon being removed, dig it thoroughly, rake it and dig again, until no lumps remain, then pat the surface gently with the back of the spade, in order to press the particles together and to get a level surface for the seeds to fall upon.

Sowing.—Strew the seeds over the impression made by the spade, and then *sift fine soil* over them, to the depth of a sixteenth to an eighth of an inch, and gently press it down with the back of the spade.

Marking.—Now split at the top the little pine sticks, four or five inches long, which you have prepared, place the paper from which the seeds were taken into the split, and the lower end of the stick into the centre of the spot where the seeds were sown. This will remain there as a record, until autumnal frosts have nipped the flowers, and there is no longer occasion for these sticks.

Covering the Seeds.—Take a piece of paper a little larger than the space covered by the seeds, lay it over them and place a handful of earth on each corner, and the work is done. This will keep out the direct rays of the sun, prevent excessive evaporation, and also the rain from breaking up the even surface of the soil.

The coming of the seeds must be watched, and as the young plants grow up, the corners of the paper may be brought together a little, which will raise it in the centre, get it out of the way, and also admit light and air.

As the plants grow, the soil must be kept in a proper degree of moisture, and then an abundant crop of beautiful flowers may be expected.

Last year we planted some forty varieties of flower seeds, most of which were from the well known house of the Messrs. Hovey, of Boston. Out of about forty varieties, there were only three which did not come up.

NEW PUBLICATIONS.

Money in the Garden. A Vegetable Manual, prepared with a view to Economy and Profit. By F. T. Quinn, Practical Horticulturist. New York: The Tribune Association. 1871. 268 pages. Price $1.50.

The unpopularity of book-farming is not chargeable entirely to the prejudices of practical men. Most of our early works on agriculture and horticulture were compiled by men who knew more about handling the pen than about real work, and it is not therefore strange that many of their suggestions and much of their advice should have been found impracticable by the man of toil and small means. As practical working men become book makers,—as our teachers tell us their own practice and detail their own methods, this prejudice against book-farming disappears.

The author of "Money in the Garden" is one

who, having made money by gardening, modestly proceeds to "put down in this volume things that he has learned from daily toil, and the wisdom of others." So far as we can judge from a hasty examination of the book we think he has "put down" a large amount of just that information which the less experienced gardener daily needs in the three departments of the kitchen-garden, the market-garden, and the field culture of root crops.

We are sorry the book has been published with no alphabetical index. Without such an index, a practical book is to us a most impracticable thing. For instance, we wished to see what Mr. Quinn had to say about "club-foot" and the new cabbage worm. No allusion to either was found in his four pages of "contents." We next try "cabbages, page 72." We glance over each paragraph on this page, on the next one, and so on, until after scanning twenty pages we find the old promise verified that "those who seek shall find," for on page 93 the *Anthomyia brassica*, an insect which causes the "club-foot," is described, and on page 95 the *Pieris rapæ*.

WALLACE'S AMERICAN TROTTING REGISTER, containing all that is known of the Pedigrees of Trotting Horses, their Ancestors and Descendants. With a Record of all published Performances in which a Mile was Trotted or Paced in 2:40 or less, from the earliest Dates till the close of 1868. And a full Record of the Performances of 1869 and 1870. Giving complete Summaries of over Six Thousand Contests. With an Introductory Essay on the true Origin of the American Trotter. And a Set of Rules for the Government of all Trials of Speed. By J. H. Wallace, Compiler of Wallace's American Stud Book. New York: G. E. Woodward; Boston: A. Williams & Co. 1871. Large Octavo, 504 pages. Price $5.

We have not found, in our examination of this volume, any reason to doubt that the author has performed all that he promises in his title page—a remark which, it will be seen by the foregoing copy of that page, is a full compliment to Mr. Wallace's work. Much space is gained by the use of small type, and a condensed tabular form. So much merit has been claimed for the "thoroughbred" that we were not prepared for the remark by Mr. Wallace that "In all my investigations of this subject I do not now recall a single instance of any respectable trotter having a clear and satisfactory thoroughbred pedigree." He does not however undervalue blood, and acknowledges that to a single family or rather to a single individual of the thoroughbreds we are indebted for the trotter. The volume contains seven illustrations of celebrated horses.

The friends of fast horses manifest a liberality in their specialty which it would be well for the breeders and friends of horses for work to imitate.

CHAMPLAIN VALLEY.—In addition to the advantages of a rich soil, the farmers and gardeners who occupy land near the broad lake enjoy a climate considerably modified by this body of water, both in respect to mildness and humidity. Considering its high latitude, the valley of Lake Champlain is peculiarly favorable to horticulture and fruit growing. At a meeting held in Burlington, March 9, the Champlain Valley Horticultural Society was formed, embracing those parts of Vermont, New York and Canada which border this beautiful lake, and officers were elected.

President—L. M. Hagar, Burlington, Vt.
Vice Presidents—Wm. H. Bailey, Plattsburg, N. Y.; Mr. Watson, Phillipsburg, P. Q., and Dr. A. T. Woodward, Brandon, Vt.
Recording Secretary—R. J. White, Shelburn, Vt.
Corresponding Secretary—C. G. Pringle, Charlotte, Vt.

A Board of Trustees was also elected and a vote passed to hold the first exhibition at Burlington some time early in the fall of this year.

OFFICERS OF AG'L SOCIETIES.

NORTH FRANKLIN, ME., FARMERS' CLUB.—*Pres.*, Seward Dill, Phillips; *Sec.*, Henry P. Dill, Phillips.
WASHINGTON COUNTY, N. Y., *Pres.*, Berry Long; *Cor. Sec.*, Milo Ingalsbe, South Hartford.

PROFITABLE FARMING.—Charles A. Sylvester, Esq., the President of the Caledonia county, Vt., Agricultural Society, bought a farm in Barnet sixteen years ago for $4000, having at that time a capital of $3000. He has recently sold his farm for $11,000, having at the same time over $2400 worth of personal property—so says a correspondent of the *Vermont Farmer*.

SHEEP IN IOWA.

I keep a thousand sheep on my farm. I am often asked if it pays to keep sheep. I think it pays as well as any thing I keep. The manure will pay alone. They will manure fifty acres well each year—twenty-five in summer and the other half in winter. Now, let us see if it will not pay. I calculate that fifty acres manured will produce in ten years one hundred or more bushels of corn per acre more than if not manured. That would make five thousand bushels in favor of manured land. At 25 cts. per bushel, this would be $2550. This may seem large to some. Reduce it one-half and it pays twenty-five dollars an acre.

Five acres on which I yarded my sheep are rich enough to produce one thousand bushels of beets per acre, a total of five thousand bushels. One hundred acres of corn at fifty bushels per acre would produce five thousand bushels. Feed this to two hundred and fifty pigs, allowing twenty bushels each of corn and beets to each pig, and you ought to have a 300-pound hog, worth at present prices, $22.50, or for the two hundred and fifty hogs, $5625.00. Give the sheep credit for one-half of this, which will make $2812.50. This may also appear large. Reduce it one-half, which will make $1406.50 in favor of the sheep.

This is not all. I have two hundred fat wethers worth five dollars each—or will be next June, when I get the wool from them. Now what is the total in favor of the sheep? Four thousand two hundred and fifty dollars. —*J. D. Ellsworth, Bennington, Iowa, in Iowa Homestead.*

THE MORGAN HORSE.

The Vermont Horse Stock Company having fixed on a location for their breeding and training establishment, are now ready to enter upon the work of improving the horses of the State. If they shall succeed in checking the acknowledged degeneracy which is seen in the late descendants of the Morgans and Black Hawks, the whole cost of the organization of the association will be realized many times over. This, however, is but a part of the purposes of the society. All that can be accomplished by the diffusion and combination of the best blood of the old and new world is to be attempted.

We have headed these remarks with what was considered a good likeness of one of the best representatives of the Morgan breed in its prime—the "Morgan Hunter." He was bred by Mr. Exwell, of Springfield, Vt; was got by Gifford Morgan, dam by same horse. He, like so many other superior animals of this favorite family of horses, was sold to go out of the State. He was described as possessing in a remarkable degree, what Youatt lays down as the most important requisite in a stallion—*compactness*—"as much goodness and strength as possible, condensed in a little space." His head is fine, and his eye large and brilliant; his chest capacious, barrel round, loin very broad, back short, quarters long and muscular, flanks deep and full, limbs short-jointed, flat, and sinewy. In temper and spirit, he exhibits the intelligence and docility which characterize most of his near relatives. Like the high-mettled Arabian, he unites the playfulness and good humor of a pet lamb with the courage and power of the war-horse, whose "neck is clothed with thunder"—"who rejoiceth in his strength," and "mocketh at fear."

For the New England Farmer.

POTATOES FOR STOCK.

I am somewhat of the opinion that the culture of roots in our country is rather on the decrease, and that it is not taking that place in farming which its advocates supposed it would ten or fifteen years since.

And this is owing mainly we think, to the high price of labor. Indeed few of us can really afford to pay from one and a half to two

dollars per day for weeding carrots, and there has not been and probably will not be very soon the Yankee born who can invent a machine that will discriminate between a weed and a carrot, so that for the present we shall have to content ourselves with the slow and tedious process of hand weeding.

In raising carrots (the best of all roots for stock purposes) this is indispensable, but in some of the other larger roots, as beets or turnips—the hoe can be used to a great extent, though the thinning will have to be almost wholly performed by the hand.

I think this may be to a great degree remedied by cultivating in their place some of the coarse, large yielding varieties of potatoes for stock feeding, as the California or Cuzco, where the culture can be performed in a great degree by horse labor, as we now have hoeing and hilling machines which perform their work quite satisfactorily. Where the soil is of sufficient strength they should be put in drills 3½ or 4 feet apart using plenty of good compost in the drills and pieces of three eyes put in 15 inches apart from each other. If pains are taken at the planting to get the drills even and regular, the cultivator and hoe can be run very close to the plants, and little or often no hand hoeing will be required. In this way if a good crop is secured, potatoes can be raised and put up for from 10 to 20 cts. per bushel, and are, for feeding purposes, in my opinion worth more than any other roots, unless it be carrots, as they possess a larger amount of starch than any other. Of the varieties named, with fair soil and good cultivation, from two to 300 bushels per acre can be expected, which is at least about one-half what may be realized from a crop of carrots, and with probably one-half the cost per bushel. The conclusion arrived at therefore is, that it may be policy where labor is high to raise the 250 bushels of potatoes rather than double that quantity of other roots. This, however, is a matter for each one to judge for himself. What may prove best for one, may not for another who is differently situated as to help. W. J. PETTEE.

Salisbury, Conn., Feb. 4, 1871.

For the New England Farmer.

SEED CORN FOR PLANTING.

As the season is now rapidly approaching in which the farmer will be engaged in planting this valuable product, it is of the utmost importance that proper seed should be used, as no doubt successful culture largely depends thereon.

Several conditions are very desirable in the raising of corn, besides thorough pulverization and manuring of the soil. It is desirable, in the first place, that the variety used be so early as to be fully ripened before the approach of early frosts. It is also desirable that it be of the most prolific kind, that the greatest possible quantity may be obtained from a given surface cultivated. To secure this a judicious selection of seed is important.

It is often noticed that a single stalk of corn contains two and sometimes three good sized ears, and even more are found occasionally. If, then, as is generally believed, the corn takes the nature of the parent stalk, it is very clear that the chance for a superior crop, other things being equal, will be much greater if the seed is taken from ears that were duplicated upon a stalk, than if taken from an ear which was the only one upon a stalk. The same rule also applies to the earliness of the crop; this can to a certain degree be regulated in the selection of the seed.

There is also a belief prevalent to some extent that the quantity of corn raised depends to some degree upon the portion of the ear from which the corn is taken. Considerable experimenting may be necessary to settle this question satisfactorily. The following is given as so much testimony on the question, in the hope that experiments will be instituted and the different experiences be related through the public press.

Nine hills were planted, three from the large end of the ear, three from the middle, and three from the small end,—the manuring and cultivation being the same in each case,—and the result was as follows:—

3 hills, seed from large end of ear				2 lbs.
3 " " "	middle of ear			1 lb. 12 ozs.
3 " " "	small end of ear			2 lbs. 4 ozs.

Again, carrying the experiment still further with thirty hills, the result obtained was as follows—:

	Stalks.		Corn.		Total.	
	lbs.	oz.	lbs.	oz.	lbs.	oz
10 hills, seed from large end of ear,	14	4	12	8	26	12
10 " " " middle of ear,	14	14	12		26	14
10 " " " small end of ear,	18		13	8	31	8

From which it would appear that the superiority in each case is from the seed from the small end of the ear. Now, allowing 4000 hills to the acre, the difference in favor of the small end over the middle would be ten bushels, and over the large end seven bushels. The seed from the small end of the ear, on an acre would produce 1250 pounds more of stalks than the middle, and 1500 pounds more than from the large end. If this fact can be established to the satisfaction of farmers, it of course would be a matter of profit, for taking an average of the two excesses and we have a gain of 8½ bushels of corn and 1375 pounds of fodder on an acre, which, upon four or five acres, would give a handsome profit without any additional outlay, and no extra labor except in the handling of an extra number of ears of corn in shelling for seed, in consequence of the rejection of a large portion of the ear. Are these things so? W. H. Y.

Connecticut, 1871.

REMARKS.—An experiment was made in 1858 on the farm of the Reform School at

Westborough, Mass., to test the old question whether seed from one part of the cob was better than that from other parts. An acre was planted in alternate rows with seed taken from the buts, the middle and the tips of the ears. Secretary Flint gives the result of this experiment in his Report for 1858. Estimating the sound corn at one cent a pound, the soft at half a cent a pound and the stover at seven dollars a ton, he presents the following comparison :—

	Sound corn.	Soft corn.	Stover.	Value.
Seed from buts	. 738 lbs.	77 lbs.	1360 lbs.	$12 53
" " middle,	663 "	164 "	1290 "	11 96
" " tips,	. 747 "	53 "	1320 "	12 36

The buts produced the most, the tips next, and the middles the least money value.

The tips produced the most, the buts next, and the middles the least sound corn.

The middles produced the most, the buts next, and the tips the least soft corn.

Secretary Flint remarks, "It is difficult to determine, by this experiment, from what part of the ear the seed should be taken. Probably a mixture of the grains of the whole ear, being most natural, would be the best."

For the New England Farmer.

SAVING AND APPLYING MANURE.

There are no questions that so deeply interest farmers as those which relate to the best mode of obtaining and the most proper manner of applying manure. By manure, I mean to embrace all fertilizers in common use, of whatever name or nature. These questions enlist the thoughts and pens of all our most prominent agriculturists and our agricultural teachers.

Numerous and careful experiments have been tested for the purpose of ascertaining what combinations of manure are the best for given crops, and how it is to be applied to accomplish the best results. Notwithstanding all these experiments, most farmers are still groping their way in the dark, so far as their individual practice or their expressed opinions at their gatherings or through the press are an indication.

I suppose it is impossible to lay down rules that will, under all circumstances of the soil and the seasons, be everywhere and always applibable; yet there are two fundamental ones that under any circumstances cannot with prudence be discarded.

The utmost exertion of every farmer should be given to obtain all the manure he possibly can, and in the best possible condition to nourish the crops he proposes to feed with it. In all the older States of our country the average of our crops has been decreasing per acre for many years past. This fact is sufficient to awaken anxious inquiry as to where it is to stop. That it *should* stop, and soon too, there is no doubt. We have no right to rob the coming generations of their birthright. To put a stop to this robbery we ought to feed our crops more bountifully. We should accumulate all the manure we can. Everything we can make subserve as food for our crops should be devoted to that end. Not only this, but all our manure should be so thoroughly disintegrated as to be in a condition for being absorbed by the roots of growing plants that are to be fed with it. Great waste often occurs from the neglect of doing this, especially in dry seasons. Not only is this a waste of the manure, but a failure to secure as remunerative crops from its application as we might, did we rigidly adhere to thoroughly pulverizing it before using.

The mode of applying manure is also a matter of moment. Some contend for surface application, while others adopt the opposite practice and put all their manure under the surface. All will admit that the character of the seasons in a great degree modify both of these practices; a wet season favoring the first, while a dry one favors the last. Over a large portion of our country the drought was very severe the past season. Coarse manure on the surface was of little worth to growing crops, save as a mulch.

I saw a large field of corn manured with coarse, lumpy manure in large quantities and of great strength. The lumps dried up and were laying undecomposed over the field at harvest time. Of course but little benefit to the corn was derived from it, and much loss resulted in the value of the manure for succeeding crops.

I am aware of the claim that the soil will *absorb* about all the fertilizing elements of manure in ordinary wet seasons; yet I think it must be conceded that when dry seasons occur, it is best to be on the sure side and incorporate it with the soil, thus making the absorption doubly sure. The incorporation should be uniform, so that the roots of the growing crop must of necessity come in contact with it, strike out in whatever direction they may. Only by observing this method can we hope to obtain the full benefit of the application.

Our market gardeners have learned the importance of thus thoroughly mixing their manures with the soil, by their increased profits,—not only from increase of crops, but from *earlier* maturity. The crop has the food always at hand and does not have to seek for it in isolated places and in undigested masses.

I am aware that the cost of labor comes in to modify in some measure the carrying out of the suggestions I have made, and that every farmer should take that into account, and not blindly expend more time and money in preparing his soil and manure for a crop and in the care of it, than it will return to him in cash when disposed of.

If manure is mostly made on the farm, and is either under sheds or in the cellar, rainy days can be profitably used in turning it over and fining it ready for use. I have often with an iron bar put holes down in the manure where hogs were kept, and dropped in a little corn. The hogs soon learn the trick of rooting it out, and will often go over the whole mass thoroughly, thus saving much labor in preparing it for future use. K. O.

March 25, 1871.

COMPUTING DRESSED WEIGHT.—The rule for computing the dressed weight, by measurement, of cattle, hogs, and sheep, is this:—Ascertain the girth in inches back of the shoulders, and the length in inches from the straight or square of the buttocks to a point even with the shoulder blade. Multiply the girth by the length, and divide the product by 144 for the superficial feet, and then multiply the superficial feet by one of the following numbers for animals of different girths, and the product will be the number of pounds of beef, pork, or mutton in the four quarters of the animal.

For cattle of a girth from 5 to 7 feet, allow 23 pounds to the superficial foot; of a girth of from 7 to 9 feet, allow 31 pounds; of a girth of 3 to 5 feet, 16 pounds.

For sheep, hogs or pigs, calves, etc., measuring less than 3 feet girth, allow 11 pounds to the superficial foot.

Here is an example which will illustrate the rule:—A hog girths 3 feet 3 inches, and its length (as above) is 2 feet 8 inches—39 inches girth, multiplied by the length 32 inches, gives 1,248 inches. To obtain the superficial feet, divide by 144, giving 8 2-3, which multiplied by 16 (the number of pounds allowed to the superficial foot for animals of this size), gives as the weight, 138 2-3 pounds.—*Western Rural.*

SPROUTING POTATOES.—Sprouting white potatoes will advance the crop two weeks. They should be cut so that about two eyes are allowed to each piece, and these should be planted in hot-beds with very thin covering of soil; or it is better to plant in boxes and set these in a hot bed, so that after they are properly sprouted they can be at once carried to the place of planting. If the nights should be anyway cold, protect with thin covering of straw when the plants make their appearance above ground. Some persons who want a large quantity sprouted, cut the potatoes as desired, and spread them on boards, boxes or crates, in a dark place, and when sprouted, say from an inch to an inch and a half, expose them to the light, moistening two or three times a week with tepid water. They should be planted out so that there is not more than two inches of soil over the top of the sprouts. —*Germantown Telegraph.*

"JONES."

The following little story, with its moral, though written for the Macon, Georgia, *Telegraph*, is quite too good to be enjoyed by the farmers of the South alone.

I knew a man, and he lived in Jones,—
Which Jones is a county of red hills and stones,—
And he lived pretty much by getting of loans,
And his mules were nothing but skin and bones,
And his hogs were flat as his corn-bread pones,
And he had 'bout a thousand acres of land.

This man—and his name it was also Jones—
He swore that he'd leave them old red hills and stones,
For he couldn't make nothin' but yellowish cotton,
And little of that, and his fences were rotten,
And what little corn he had, *that* was boughten,
And he couldn't get a living from the land.

And the longer he swore the madder he got,
And he rose and he walked to the stable lot,
And he hollooed to Tom to come there and hitch,
For to emigrate somewhere where land was rich,
And to quit raising cock-burs, thistles and sich,
And wasting their time on barren land.

So him and Tom they hitched up the mules,
Protesting that folks were mighty big fools
That 'ud stay in Georgia their lifetime out,
Jest scratching a living, when all of them mought
Get places in Texas where cotton would sprout
By the time you could plant it in the land.

And he drove by a house where a man named Brown
Was living, not far from the edge of the town,
And he bantered Brown for to buy his place,
And said that seeing as money was skace,
And seeing as sheriffs were hard to face,
Two dollars an acre would get the land.

They closed at a dollar and fifty cents,
And Jones he bought him a wagon and tents,
And loaded his corn, and his women, and truck,
And moved to Texas, which it took
His entire plie, with the best of luck,
To get there and get him a little land.

But Brown moved out on the old Jones' farm,
And he rolled up his breeches and bared his arm,
And he picked all the rocks from off'n the ground,
And he rooted it up and ploughed it down,
And sowed his corn and wheat in the land.

Five years glid by, and Brown, one day,
(Who had got so fat that he wouldn't weigh,)
Was a sitting down, sorter lazily,
To the bulliest dinner you ever see,
When one of the children jumped on his knee
And says, "yan's Jones, which you bought his land."

And there was Jones, standing out at the fence,
And he hadn't no wagon, nor mules, nor tents,
For he had left Texas afoot and come
To Georgia to see if he couldn't get some
Employment, and he was looking as humble as if he had never owned any land.

But Brown he asked him in, and he sot
Him down to his victuals smoking hot,
And when he had filled himself and the floor
Brown looked at him sharp and rose and swore
That "whether men's land was rich or poor,
There was more in the *man* than there was in the *land*."

S. L.

—To encourage the growth of forest trees at the West, Mr. N. S. French, of Carroll County, Ill., states in the *Prairie Farmer* that he has this winter cut down a cottonwood tree twenty-nine years old that measured thirty-seven inches in diameter at the stump, and furnished two logs of about 300 feet, log measure, and nearly or quite a cord of wood. It grew in his barn yard.

SHEEP HUSBANDRY.

SO MUCH was said a few years ago in relation to this branch of New England farming, and so great a revolution in it suddenly took place, that those persons who are not engaged in it may suppose that the culture of sheep has been nearly abandoned. Such, however, is not the case. Some 30,000,000 to 40,000,000 of sheep are still in the country, and a fair portion of them in the New England States. The interest in their culture is still an important one in Maine, Vermont and New Hampshire.

The light hay crop of last summer may induce some to resort to a poorer quality of fodder for the sheep. Empty scaffolds, and decreasing bays may suggest this. The policy would be a poor one, and ought to lead to the question,

What is the effect of Food on the Wool?

The character of the food has much to do not only in the production of good sheep and good lambs, but also in the production of wool. A leading object in raising wool should be to *keep the staple even through its entire length*, and this can be done only by feeding regularly both in quality and quantity. If sheep have been fed upon sweet, nutritious hay, with occasional feeds of grain and roots, and then followed for many weeks by hay of a poor quality and the roots and grain denied them, an inequality in the wool will be produced,—the upper part of the staple will be light, and the lower part much thicker; in this case the top part of the staple will break off in working it up. So it is impossible to produce good wool upon pastures abounding only in coarse, wild grasses. Good bred sheep should never be turned upon such lands, for whatever the care of breeding may be, the coarseness of the feed will produce inferior wool.

In common with many other animals—including man himself—there is always exuding from the skin of the sheep an oily substance called yolk, or gum, especially designed by nature to protect the animal from too much moisture, and to soften the wool. This oil is feebly supplied by old sheep and those fed on meadow hay or other coarse fodder, and is more abundant in vigorous and well-fed sheep. This is an important secretion, and can only be supplied by generous keeping and proper care. If these are lacking, the secretions will not take place in sufficient quantity, and sheep, lambs and wool will be seriously affected; especially is this the case, when *sudden* changes occur from good feed to bad. Great care, however, should be observed, that not too much of this oil is excited, as it then wastes the powers of the sheep, and becomes expensive to the manufacturer to remove it.

Wool is composed of the best flesh-producing substances found in the vegetable kingdom. The animal has no power to change the character of those substances, and the composition of the same kind of grass is materially varied by the soil upon which it is grown; hence the character of the soil has much to do with modifying the character of wool.

It has long been known that wool raised upon calcareous or limy soils is dry and harsh, while that raised upon argillaceous, or clayey soils, is soft and mellow; cultivation will materially modify this fact.

The black-faced, heath breed, raised upon the uncultivated moors of England, produce a short, coarse, harsh wool; but this is greatly improved when the same breed is raised where the land is cultivated, though the soil is the same, a fence only separating the two. On the other hand, if the highest bred long wooled sheep are allowed to run upon the moors, the wool quickly degenerates, and soon becomes wild and harsh, like the low bred type.

We may learn from these facts that the food of the sheep modifies the character of the wool, and that we cannot have good wool from poor feed. The higher the type of sheep, the higher must be the character of the wool. We cannot escape this law. If we give poor feed, we shall have poor wool and light fleeces; if good feed, large animals, large lambs, good wool and a generous quantity.

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For the New England Farmer.

THE GARDEN IN MAY.

"Beautiful is spring—cheerful, bright spring,
Enlivening scenery; mild pleasant weather—
The face of creation, each created thing,
To praise the Creator, uniting together."

Again returns the season of busy out-door operations in the garden; and if we expect or desire to have a good garden we must be up and doing,—take old Father Time by the forelock, and *lead* him through the season. Gardening is not only an innocent, healthy and profitable occupation, but was the primitive employment of the *first man*; and we find among his descendants that the *first men* have always been attached to that occupation. A good garden, to the farmer, of all other persons, is the most profitable, and of all others they ought not to grudge the necessary labor and time, as it may be done at odd intervals.

The first act in out-door operations, is the preparation of the garden soil to receive the seed, by manuring and ploughing. In order to insure rapid germination, growth and maturity, too much pains cannot be taken in fertilizing, mixing, fining and deepening the soil, as the finer and more intermixed the soil and the manure, the better the plant food is imparted to growing plants, the more rapid their growth, and the sooner they mature, containing much greater succulence, tenderness and nutrition, than in poorly prepared soil.

But the first essential of all towards a good garden is *good seed*—thoroughbred seed. In some kinds of seed there is little opportunity for deception or mistake; but in others there is every chance, and little to guide in the choice. If you do not grow and save such yourself, you should buy only of the most careful, reliable growers, or dealers, and even such men may be deceived, where they do not produce all the seed they sell. There are many contingencies regarding seed, such as genuineness, soundness, &c., any one of which wanting will often defeat our anticipations.

ASPARAGUS.—The beds should now be yielding their best; and cutting should be in a regular successive order. As the shoots rise to the height of two, three, four or five inches, at most, above the surface, while the bud remains close and plump, they are in the best condition. Cut them off below the surface with a suitable knife, running the knife nearly straight down close beside the shoot, cutting off with a sloping cut, being careful not to wound the crowns or advancing buds. In new beds, cut only the largest and strongest shoots. Old established beds may be cut from as fast as the shoots attain suitable size, and clean through the month.

BEANS.—*Dwarf.*—Plant in rows 2½ feet apart, dropping the seed two to three inches apart in the drill; cover two inches deep. *Pole* or *Running.*—These should not be planted till danger of late frosts are past, as they are more difficult of protection than the Dwarfs. Make the hills 3 1-2 to four feet apart, each way; put a shovel full of well rotted manure, compost, in each hill, cover one inch and set a pole, rising six feet, firmly in the centre of each hill, and drop six or eight beans, in a circle four or five inches away from the pole, cover one inch deep, except limas, these be particular to stick eyes down and cover so the top of the beans will have only half an inch of fine soil over them; if the soil crusts hard, break and pulverize so the plants can get up.

BEETS.—A deep, rich sand, dry and light, rather than moist, is the soil the beet delights in. Sow in drills sixteen inches apart, dropping the seed one inch apart to be thinned when up. The sooner the seed is put in after the ground will work well in spring, the better.

BRUSSELS SPROUTS.—Sow seeds in a rich, well prepared seed bed; drills ten inches apart best.

CABBAGE.—Sow seed in seed beds for medium and later crops; transplant early plants, for the early crop; salt, lime and ashes are good, worked into the surface on well enriched mellow soil, for the cabbage. Set the roots deep, half or two thirds the length of stem down.

CARROTS.—A light, mellow, rich soil, considerable sandy, and deeply worked is essential for a *good* crop of carrots; sow in drills, across four foot beds, twelve inches apart.

CAULIFLOWERS.—Transplant early, into rich, early, mellow soil 2 1-2 feet apart each way.

CELERY.—Seed may be still sown in beds of light mellow soil, and lightly covered.

CORIANDER.—Sow seed in twelve inch drills, in beds of sandy loam.

CRESS.—Sow seed in beds of fine mellow soil, well prepared, in drills six to eight inches apart.

CUCUMBERS.—Early cucumbers require a warm rich soil, somewhat sheltered from cold winds, etc. Prepare the hills 4½ or five feet apart, by excavating a hole two feet across and six inches deep; put in half a bushel of good strong compost hog pen manure, cover one inch with fine soil, and scatter a dozen seed thereon, covering half an inch. Plants started in the hot-bed may be transferred into such hills after frosts are past.

EGG-PLANTS.—Near the last of the month, plants may be taken from the hot-bed and set in rich, warm soil, two and one-half feet apart.

LETTUCE.—Sow seed in eight inch drills across four feet wide beds, when the plants grow to the size of three or four inches across, transplant into rich soil, ten inches apart each way.

MELONS.—Watermelon, Citron, and Nutmeg melon seed, may be planted in warm sandy soil, well exposed to the sun, in hills prepared as for cucumbers; watermelons six

feet. Citron and Nutmeg same distance as cucumbers; cover the seed one inch with fine soil.

MUSTARD.—All good farmer's wives understand the value of mustard, both the seed for condiment, medicinal and other purposes, and the young plants for greens. Sow in drills six inches apart.

ONIONS.—Seed may be sown the first of the month, in rich, moist sandy loam. Set out rareripe, potato, and top onions, if not already done. For seed, set perfect bulbs, six to ten inches apart.

PARSNIPS.—Seed of last season's growth is best and surest. Sow in deep-worked, rich soil, in drills sixteen inches apart, dropping the seed two inches apart to be thinned to six inches.

PEAS.—Make successive sowings of early varieties; sow tall growing, and Marrowfats, in double rows, four feet apart; put up neatly prepared bushes as soon as the plants are 2 to 3 inches high.

PEPPER.—Sow seed of the Cayenne and long Red in soil enriched with hen manure. Sow in drills one foot apart to be thinned to six inches in the row.

POTATOES.—Plant the Early Rose in drills 2 1-2 feet apart and half foot in the drill, give to each hill four quarts of well decomposed compost, or a pint of ashes, with a little salt.

RADISH.—Make successive sowings in light, mellow, rich soil, deeply worked.

RHUBARB.—Old stools may be divided and reset in rich, moist soil. Cut out all seed stalks soon as they show; pull, not cut, the leaves and stems with a sideways jerk, when desired.

SAGE.—Old roots may be divided or seed sown in good rich soil if new beds are desired. Give established beds a good dressing of well rotted manure, and work in around the roots of plants.

SALSIFY, OR OYSTER PLANT.—Plant and treat same as directed for the parsnip.

SPINACH, OR SPINAGE.—Sow the round-leaved variety in rich quick soil, stirring it frequently after the plants are up, as it depends for its goodness and succulence on the rapidity and quickness with which it grows. Sow in beds, broadcast, or in drills.

SQUASH.—Plant the summer varieties same as cucumbers. Fall and winter kinds will need more space, but same general treatment in planting; five or six seeds are sufficient to a hill.

STRAWBERRIES.—See that the strawberry worm, *Cyclocephala immaculata*, Oliv.—do not get on the vines to destroy the crop and vines. Hand picking is a slow process, but sure.

TYHME.—Sow seed in beds or borders of light fine soil, covering lightly.

TOMATOES.—Plants started in the hot-bed or in boxes in the house, may be set in the open ground the last of the month. A flower pot or box is convenient to cover them cool nights, and also after transplanted, till established.

W. H. WHITE.

South Windsor, Conn., 1871.

For the New England Farmer.

TOP DRESSING vs. PLOUGHING UNDER.—No. 3.

Another example of considerable magnitude furnished by nature, proving that manure does not, to any considerable extent, pass into the atmosphere in the form of vapor or gas, is found in the guano districts where this deposit has accumulated for ages and is regarded as one of the best fertilizers known. It has been exposed to atmospheric action, rains and thermal influences; yet it is so rich in the elements of plant food that manufacturers of artificial fertilizers esteem it a sufficient recommendation for their goods if the public can be made to believe them "equal to the best Peruvian guano." If manure is principally lost in the atmosphere, this deposit should not be worth the transport of half a dozen miles.

Different soils require different treatment in some respects; yet I cannot understand why, if it is a general law that manure goes up, or the reverse—or that it goes both ways—that this law should not be universal. The retentive capacity of some soils is much greater than others, owing to a compact subsoil; hence such lands are among the most valuable to the farmer. The soil in this and the surrounding towns is generally of this description. It is deep, and under good cultivation produces large crops of grass, oats, barley and potatoes. Indian corn is not grown largely, the crops above named being deemed the most profitable; yet it is not uncommon to see small pieces under good management yielding fifty bushels per acre.

In the spring of 1869 I had a piece of land to seed down that had been planted with potatoes two years and manured sparingly—the soil was deep and humid above the average, and rather tenacious. As is my custom, it was manured upon the surface, so that the land was nearly out of sight. The yield of oats was large and the catch of grass all that could be desired, covering the ground at reaping time with a thick coat six or eight inches in length and hiding the land from view. The prospect of a large yield of grass the next year was fully realized. Notwithstanding the drought of 1870 the first crop was very heavy, as large as could be dried upon the ground in two of the hottest days, with close attention. A second crop followed, about half as large, though during the interim the fall of rain was light. The yield per acre I am unable to give; but the crops of those two years I have seldom seen equalled. The prospect at this writing of another large crop is very good.

Now I contend that this manure is exactly

where it should be to insure the best results, and worth as much to me as fifty per cent. more would be six or eight inches below the surface. The harrow will pulverize and mingle manure with surface soil to a depth to facilitate decomposition; the moisture thus found will liquify its soluble particles while the little spongioles draw nourishment from the bountiful supply near at hand.

It would be amusing to see farmers who plough their manure under through fear that it will go skyward like a balloon charged with hydrogen gas, top dressing grass lands; yet such an anomaly is common. It is pretty well settled that this is an excellent method of increasing the grass crops; and there are very few good farmers at the present day who make grass a specialty who omit it. Were I to increase the grass crop upon a farm adapted to it to the greatest extent in the shortest time, it would be by ploughing little and spreading well rotted manure upon the grass. Ashes also are valuable upon some grass lands; upon others worth but little. The extremes of very wet and very dry land should be avoided—at least this is my experience.

Several years ago a small piece was ashed in spring liberally; the crop that year was considerably enlarged; the next year I judge it cut two tons per acre, where before it cut from five to ten hundred, and patches of moss that had held possession for several years had gone.

A large manure heap is indispensable to profitable farming; large hay crops insure the manure heap. To increase both without resorting to artificial fertilizers, plough less, top dress the grass, and grain lands at seeding time; and as the hay increases, furnish mouths to consume it. Spring in some respects is a favorable time to treat grass lands; rains are often more frequent than in fall, and if done early and well the scythe will meet with little obstruction. C.

Wilmington, Vt., 1871.

For the New England Farmer.

GARDENING FOR MAY.

May, sweet May, greeted by Spenser as—

"The fairest maid on ground,
Deck'd with all dainties of her season's pride,
And throwing flowers out of her lap around,"

is now with us, and will soon unfold the abundant riches of nature. The tender green of the fresh, young leaves is indescribably beautiful, and the flowers of this month are of delicate texture, and most exquisitely tinted. The host of summer birds have all returned, and the woods are melodious with their varied song.

May was a merry month in the olden time. The ancient English loved all customs that contributed to happiness, and wealth and poverty often met on May-day, on the same equal footing. The lord of the soil gave the tallest tree upon his estate for the May-pole, and the lowliest laborer danced around it with a light heart.

May-day is celebrated in many parts of our country, and though the gatherings are more select than in times of yore, yet this month is fraught with a blessing to every heart. Its bright sunny days invite us all to come forth and enjoy them. A writer says:

"I know not how it is with others, but to me the spring's invitations are irresistible. I may be scholarly inclined, and my task indoors delightful, yet my garden claims me, monopolizes all my morning hours, and I know for me has come the season's summons which I shall not set aside,—no, not for studies nor hospitalities which become rivals for my time and attention. My garden waits—is the civiler host, the better entertainer. Then I have a religion in this business, and others must waive compliments. Would the sun but shine all night long for my work to continue!"

Thus speaks a lover of gardening, and all of us who possess the true spirit will indorse his sentiments.

Gardening is peculiarly adapted to women—it offers to them recreation and pleasure, far more than they can realize until they have commenced operations.

The love for cultivating both flowers and vegetables is greatly on the increase—and many ladies wholly superintend both flower and vegetable gardens. We can plant peas as well as petunias, and enjoy seeing them flower and fruit. To be sure I prefer to have the beds dug over for me, and the trenches prepared full six inches in depth, then the seed can be easily dropped in. Beans, beets, spinach, &c., can all be planted by women's hands, and by employing a small boy to keep down the weeds, many delicious dishes can be procured for the table.

Farmers, as a general rule, neglect the kitchen garden, and deprive themselves of many comforts; and if they do attend to it, it is not planted until all the crops are in, and then receives but little attention. But if the wife and daughters of the house can take it in hand, they will be very proud of their handiwork. May is the month to cultivate a fondness for the occupation. If the season is backward flower seeds can be planted in the house, and their blossoming will be hastened by several weeks.

If a few friends club together, they can purchase seeds and plants at a large discount. $5 will purchase to the amount of $6.25, and by exchanging plants or seeds, a great variety is procured at but a slight expense. Five ladies for $1 each, can buy a goodly supply, and there is always a charm in wholesale purchases. Plants are now sent by mail with perfect satisfaction. The Innisfallen Greenhouses offer every inducement to purchasers by sending plants by mail at a very cheap rate. Fifty bedding-out plants of rare varieties, are

sent post-paid, for $6. So that ladies by clubbing together could supply their borders at a great reduction of the usual prices.

The custom of distributing seeds, bulbs and plants by mail, is rapidly increasing in favor among all florists, and is decidedly the most advantageous for purchasers, who thus avoid heavy express charges, which added materially to the expense, and deterred many from ordering plants.

In many localities in New England the seasons are so backward that tender annuals will not blossom early enough to show forth their full perfection, unless they are raised in the house or in a hot bed. A sunny kitchen window is very excellent for their culture.

Asters, Balsams, Zinnias, Petunias and Pansies all do much better for being planted early in this month, and then transplanted into beds or borders after all danger of frosts is past. Being fibrous-rooted plants, their strength is increased by the transplanting, and experienced gardeners often transplant them into small pots before the final planting for summer blooming.

We have given many directions, heretofore, how to plant seeds, but will repeat a few of them. The soil must be well pulverized, and the best way is to bake it in the oven; this will kill all larvæ of insects, and destroy the seeds of weeds. Mix a goodly quantity of sand with the earth, thus making it warm and friable, and not liable to bake down, and prevent the germination of the seeds.

Nearly all the complaints from amateur cultivators of bad seed are owing to their ignorance of their culture. It is the seedsman's interest to send out good seed, else he would ruin his trade. His is not the fault of your non-success.

Tiny seeds should be mixed with sand, and sprinkled lightly over the prepared soil. Petunias, Portulacas, &c., cannot germinate under quarter of an inch of soil. They are so minute that they require the slightest possible covering. Sweet Peas, Lupins, Balsams, and all good sized seeds require an inch or so of soil, and the former flourish better under four or five inches. Asters, Stocks, &c., will germinate more quickly under quarter of an inch of earth. Verbena seeds are slow to germinate,—often from three to four weeks will pass before they show their heads. If soaked over night in water they come up better.

If cigar or raisin boxes are used to plant the seeds, they can be divided off into sections with strips of pasteboard, cutting though the edges of the strips that run across, to let in the side strips. Put the skeleton boxes thus made into the wooden box; fill up with the baked loam while warm to the hand and let the edges of the pasteboard come above the level of the box. Write the names of the seeds on little sticks, so that when the plant is in bloom you can know its cognomen, and not be obliged to say "that red flower—this blue one, and the other yellow one." Press the earth firmly upon the seeds with the fingers; cover the whole box with a thick piece of old flannel well wet with warm water, and *always* water the seeds through it until they have sprouted. If the seeds are of greenhouse varieties, keep the flannel over, by cutting small holes for the tiny seedlings until all have come up, then remove it altogether. Panes of glass fitting tightly to the boxes, will do as well after the first two or three days, but thick flannel, if kept wet all the time, supplies heat and moisture which are both so essential to plant life.

Great care must be taken not to keep the young plants too warm, and cause them to spindle up and look like potatoes grown down cellar. In this fickle month we are liable to severe frosts, and we must also guard against the chilling of their tender life.

If the night is cold, either remove the boxes from the windows, or cover them with several thicknesses of newspaper which will protect them. After the fourth and fifth leaves appear it is well to plant them in two inch pots, this will cause them to strike deeper root, and give them more life. Hot-beds are a very desirable adjunct to every northern household, and are so easily constructed that the marvel is that every owner of a garden does not possess one. A large dry goods box will furnish the frame by sawing off the sides a foot or more, leaving the back of the boxes at least eight inches higher than the front, and having the sides planed off in a regular slope, sink it two feet in the ground. Fill up one foot with fermenting horse manure,—if this cannot be obtained decaying leaves will do; for if the plants are well established first in the house, they will not suffer for want of bottom heat. Place over the whole a window-sash which will fit tightly. If a new one is needful, have it made without side strips of wood, and lap the panes one over the other. This gives better light, and is less expensive. The sash can be fastened to the back of the box with heavy, iron hinges which can be raised up easily. Sand should be plentifully scattered over the whole surface. In such a hot-bed, costing but a small sum, many plants could be raised, cuttings struck, and tomatoes and melons started. Permanent hot-beds are much more expensive, draw more largely upon the contents of our purses, and to those of us who possess but little of the *root of all evil*, (though we think many good things spring from that same evil root,) the dry goods box offers a pleasant pastime, and an abundance of good things. In another article, we will speak of bedding out plants, *nomen est legio!* Yearly they increase in beauty and variety.

We trust that we shall inspire all our readers with a love for flowers, and induce many of them to undertake their culture. They are fraught with a blessing to many a heart, and

the occupation they offer to us is exceedingly healthful. In all countries women love flowers, and are engaged in their culture. A farm house without them is bare indeed—bereft of its chief glory. Those who have travelled in the country, can testify that a rose tree at the window—a honeysuckle around the door of a cottage is a good omen to the weary traveller. The hand that cultivates flowers is not closed against the supplications of the poor, nor against the wants of the stranger. Flowers have been called the alphabet of the angels, wherewith they write on hills and plains mysterious truths. S. O. J.

EXTRACTS AND REPLIES.

WHITE PINE SEEDS.

Can you inform me where some seeds of the common White Pine may be bought, and the price? When should it be sown? R. S.

Millington, Mass., March 26, 1871.

REMARKS.—Tree seeds are seldom to be found in seed stores here. It is difficult to keep some of them so as to preserve their vitality. As a general rule they should be planted soon after ripening. The white pine ripens its seed in August and September. Mr. David Allen, to whom the premium on forest trees in Plymouth County, Mass., was awarded in 1852, says the proper time to gather white pine seed is from the 25th of August to the 10th of September and before the burrs open. They should be spread on a tight scaffold, away from mice, and when dry can be threshed with a flail without injuring the seed. December is considered a good time to sow the seed, though if kept moist they may be sown in March. Many who have cultivated pine forests prefer transplanting small trees from pastures, road sides, &c. For this purpose May and June are favorable months. Mr. C. Morton of Kingston, Mass., furrowed a piece of ground as for corn, only wider, took up small trees from pastures, &c., with a shovel, with considerable sod and soil about the roots, placed them in the furrow at proper distances and hauled the earth about them. Of 400 thus transplanted in the last of May not one in twenty died. In one case a hired man furrowed the ground and dug up and set out trees on half an acre of ground in one day. Trees transplanted in the same way the next October nearly all failed. Possibly were you to order now some White Pine seeds for next fall some of our dealers would engage them for you. Messrs. J. Breck & Son have furnished them on such orders. Probably others would do the same.

STRAWBERRIES AND ONIONS.

Having passed three score years, half of which I have spent in manufacturing business, I now come back to the farm to get my living from the soil. I would be glad of a chapter from you on raising vegetables and berries,—the labor and expense, the profit and loss. Which of the following kinds of Strawberries would you recommend—Wilson's Albany, Jucunda, Nicanor, Peak's Emperor, Triomphe de Gand? I have a piece of land that has been planted two years with potatoes. Will it do to put on some short manure and cultivate it in, without ploughing, for onions? Some say the harder the ground is the better for onions. Which is best for market? W. B.

Cohasset, Mass., March 26, 1871.

REMARKS.—One or two bound volumes of the Monthly FARMER, with its ample index of subjects, will give you "chapters" on almost any agricultural topic on which you need information. Capt. John B. Moore's essay on the culture of small fruits, pages 142, 143, 144 and 145 of last year's volume, would probably be worth the cost of the whole book to you. Just now we have not time at command to answer your inquiries fully. In relation to the first strawberry you mention Capt. Moore remarks, "for profit there is nothing better than Wilson's Albany; for eating without cooking there is nothing poorer in quality." With some of the kinds that you mention we have no acquaintance. Hovey's Seedling is still popular in this vicinity. The Cutter's Seedling is popular. Mr. Manning of Reading has the Wilson's Albany and Cutter's Seedling. Last summer's drought has made plants dear—some $10 a 1000. A gentleman recently informed us that he was intending to set out, near Lowell, about an acre of strawberries this spring, and that last fall he engaged the plants of a neighbor who had a large old bed on rather dry land, that had not been mulched. On examining the bed recently the owner and himself were surprised to find that there was scarcely a live plant on the whole plot. At the same time the plants on a small bed on similar land that was mulched last season were alive and vigorous.

Soil for onions should be rich and fine, whether a cultivator or plough are used. The Early Danvers is most popular in Essex County. Mr. Gregory calls the Red Globe good. The Potato Onion is the earliest and most sure.

DWARF APPLE TREES.—MONTHLY FARMER.

I wish to inquire if there is anything known of the Dwarf Apple tree? There has been an agent for fruit trees canvassing in this town this winter, and his chief attraction was this dwarf tree, the parent stock of which he says is imported from Germany to New York, and is set there to be budded. He claimed that it would succeed in any soil, and not being an apple stock the apple borer is less liable to trouble it, and the fruit is fairer and more perfect.

I would also inquire how many bound volumes of the NEW ENGLAND FARMER monthly you can furnish, and the cost. B. B. SMITH.

East Dover, Me., 1871.

REMARKS.—The apple tree is dwarfed by grafting on the Paradise or Doucin stock. Mr. Thomas, in his "American Fruit Culturist," says, "for summer and autumn sorts, dwarf apples are valuable in affording a supply to families. They begin to bear in two or three years from setting out, and at five or six years, if well cultivated, will afford a bushel or so to each tree. A portion of a garden as large as the tenth of an acre, may be planted

with forty or fifty trees, without crowding. All the different varieties of the apple may be made dwarfs by working on the Paradise or Doucin stock—the former are smaller and bear soonest; the latter are larger and ultimately afford the heaviest crops. Among the handsomest growers as dwarfs, are Red Astrachan, Jersey Sweet, Porter, Baldwin, Dyer, Summer Rose, Benoni, and Bough."

Our own experiments with the dwarf apple tree have not been very favorable. They grew sprawling, and without careful trimming, became ungainly looking things. Perhaps ours were not on the right kind of stock.

We can furnish the whole of the new series of the Monthly FARMER, four volumes, for 1867, 1868, 1869 and 1870, for $8.25—either volume $2.25.

THANKS TO CARRIE—WHITE SPECKS IN BUTTER.

Through you I wish to thank "Sister Carrie" for her very useful letter upon butter making. It is directly to the point and has been of service to me.

In your last issue we noticed an article in regard to the great dilemma of the dairy*men* of Vermont (women would probably have had no such trouble) in respec to "white specks in butter."

Not being of a scientific turn of mind I cannot explain through what chemical process the Vermont *cream* passes to form white specks in the butter, but a very common-sense view was given by an Irish dairywoman, who on hearing the article read, exclaimed, "Great fools! if they would put no sour milk in their cream, the white specks would not trouble them in the butter."

Please to restate the receipt for taking the pine taste out of barrels, which was given a few weeks ago. MRS. T. G.

Deerfield, Mass., March 29, 1871.

REMARKS.—Pine is not generally regarded as a suitable wood for dairy utensils, and we are not able to refer to any receipt lately published in the FARMER for removing the pine taste from barrels. Possibly the following is what is referred to:—

TO CLEANSE MUSTY BARRELS OR CASKS.—Put a quarter of a peck of unslacked lime in the bung hole of the barrel, into which pour a gallon or two of boiling water to slack the lime, then put in the bung and shake the cask well so that the contents of it will come in contact with all of the inside. Let it stand a day or two, after which rinse out well with plenty of cold water. If the barrel or cask is still musty, the same operation must be repeated, and a strip of cloth dipped into melted brimstone and hung down in the bung hole, set fire to and the bung slightly driven in.

EXPERIMENTS WITH SPECIAL MANURES.

When I wrote you last I told you we had four or five agricultural papers in Georgia, and it appears we have at least six now. I think this shows at least, that there is a great deal of inquiry into the science of agriculture. Men are experimenting, trying to learn what kind of manures and fertilizers will enable them to realize the largest crops at the least expense. Some are using all their energies to manufacture, gather and save manures for the coming crop, myself included in this class.

I began experimenting in a small way on my wheat crop last fall. The first I sowed without any manure the 8th of October, on wheat stubble; the second lot was soaked in blue vitriol twenty-four hours and dried with plaster. On a portion of this—some of the very poorest—was sown 125 pounds of dissolved bones, guano, salt and plaster. The wheat on the portion manured shows now to the very line, and is far better than the rest, sowed the 21st of October on oat stubble. I sowed a third lot on cotton ground, seed prepared as the second lot, in plaster, and sowed also 300 pounds of dissolved bones and the ashes, &c., in which they were dissolved. This was sowed from the 18th to the 21st of December, and did not come up until the latter part of January, but is growing finely now.

On a portion of my first sowing I hauled out in January four wagon loads of rich mould that had been mixed one or two months with fifteen bushel of lime and one of salt; on another portion I sowed at the rate of half a bushel of plaster and four bushel of ashes early in December; and still on another portion, in the fore part of February, I hauled out five wagon loads of ashes and brick dust on about an acre, and a small portion is left without anything being added to the soil, which is poor.

On my second lot I sowed about the first of February, at the rate of two bushels of salt; on another portion 300 pounds of dissolved bones and ashes, and a small part of that on which I had sown salt. By the side of this I sowed ten bushels brick dust and all the ashes I could gather with it, and two bushels good fresh ashes, with half bushel plaster to the acre, and again by side of this I sowed forty bushel of the same dust and ashes with a bushel of plaster and bushel of salt, and by the side of this again, brick dust and the ashes burned with it about the same as on the first lot.

There was a triangular piece of this second lot on which there was sown with the wheat and ploughed in with it some of the fertilizer first named, that was also sown with salt and another with dissolved bone and ashes.

I do not expect to follow out the results of these experiments so particularly as to measure the ground and the wheat on each separate part, possibly on none of them, but I do intend to watch the effects very closely all through the season and still more particularly at harvest, and have no doubt I shall be able to gain some knowledge that will be very beneficial in the future.

I think this is the kind of knowledge that will make farming pay here equal to anywhere else.

Cartersville, Georgia, March 24, 1871. J. H. R.

REMARKS.—In a private note, the writer of the above communication says that as it refers mainly to experiments yet incomplete, he does not suppose it will be considered worth publishing. We think, however, the Northern farmer will take an interest in the efforts of his Southern brethren to increase his crops, and to make poor land yield more luxuriantly, and we hope by publishing the foregoing now to increase our correspondent's obligations to communicate the knowledge he obtains by the result of his experiments.

CORN ON MANURE AND ON SUPERPHOSPHATE.

I propose in this paper to give you an account of the tillage and production of two fields of corn in my neighborhood that came under my observation during the last year.

The land of both fields was very similar in kind and quality,—warm sandy loam,—just the right kind to produce a good crop of corn with liberal manuring. Both pieces of land had been pretty severely cropped and were in a low condition and a poor state of tilth. Both pieces were well ploughed, planted about the tenth of May, and well tended during the summer.

One piece, the lightest and if any thing rather the poorest soil, was manured with a common barn shovelful of compost to the hill, made up of some

loam, and the droppings of the horse, cow and pig all mixed together, with a small handful of ashes put to each hill at the time of planting. The produce on this field was ninety-three bushels of ears of plump sound corn to the acre,—that being the area of the field,—and the corn was uniformly good on all parts of the field.

The other field was manured with phosphate of lime,—a single handful to each hill,—one-half put in at the time of planting, the other half was put round the corn at the first hoeing, and no other manure of any kind was used on the field. The corn came up well, grew splendidly the fore part of the season till about the time it was well set for ears. Then it began to turn a sickly color and showed unmistakable signs that the strength of the phosphate was exhausted, and though there was a fair amount of stover, the crop, so far as grain was concerned, prove a signal failure, except on a small part of the field that was a little dishing where the soil was stronger and in good deal better tilth than the field would average. ROYAL SMITH.

Millington, Mass., March 26, 1871.

BUTTER MAKING.

I was a farmer's daughter and am a farmer's wife, and have made butter for thirty years. I see in reading the columns of your paper the questions are asked, What ails the cream? Why don't the butter come? Now, I pretend to say that butter will come just as quick in the winter as in the summer, if you have a warm place to set the milk and keep the cream in. I don't think the milk or the cream ought to be chilled or frozen at all. If I have a right place to set my milk in I never scald it, nor the cream. If it is very cold weather, the day before I churn I set the cream in a warm room, and it comes so quick that the men folks don't get out of patience in churning. Now if the men want the butter to come quick they must find a suitable place for the milk, and not find fault with the wife because the butter don't come.

I think it a good plan to stir the cream every time we put any in to the cream can. If your churn is too large, buy or borrow a small one. Never let the cream get bitter, but if it should happen to be so, take a little new milk and put in a few spoonfuls of white sugar and stir it up well and then pour it into your cream just before churning. It will add much to the taste of the butter. I use no saltpetre nor salt in my cream. I agree with you Lady writer of March 10, about washing butter. I always wash mine in cold and hot weather. If very cold, I put just a little warm water with the cold water to wash it with,—just enough to take the chill off. I always use carrots for coloring butter. MRS. J. B. P.

Putney, Vt., April, 1871.

A GOOD COW—GOOD FEED—GOOD BUTTER.

Having read with interest several letters in the FARMER on cows, and butter making, I feel it is but justice to our good cow that a word or two should be said in her praise, and as my husband is too much occupied with his business to do it, I shall make the attempt myself. She is fourteen years old, and last May she calved and had *twins;* consequently she did not do as well as in some previous years. But I will give the milk and butter statements of last year:—

Made 203 pounds of butter	$101 50
Sold 1114 quarts new milk	74 48
Sold skimmed milk	64 67
	$240 65.

This is independent of cream and milk used in our family and given away. Cream and milk we use lavishly, and our good farmer John has daily new and skim milk. Our cow is now giving about twelve quarts of milk a day, and we make about three and a half pounds of butter a week. We should make more, but four quarts of new milk are taken out daily. Farmer John thoroughly understands taking care of cows, and is very judicious in feeding her. She now has daily four quarts of meal, six quarts of shorts and as much good hay as she will eat. Once a day he steams the hay, and gives her cut feed. She is part Ayrshire.

With regard to butter making I must say a few words, although my experience is limited. We have never had any difficulty in making good butter from any cows which we have owned, and we never churn to exceed three-quarters of an hour at any season of the year before the butter comes; and now not over fifteen or twenty minutes. We have a very good milk room in our basement. The milk stands twenty-four hours at this season of the year, and twelve in summer. I churn once a week now. Keep the cream in a stone pot. The day before churning, have it set in the kitchen, as the milk room is cold. I scald the churn and put the cream into it while it is moderately warm. Our butter always comes firm, and now it is sweet and *almost* as yellow as June butter. It seems to me the great secret of butter making is keeping every article in which milk or cream is put scrupulously clean and sweet, and *not* keeping the cream too long before churning. M. N. S.

Providence, R. I., March, 1871.

OX AND HORSE WAGONS.

Friend Rollins has explained matters much to my satisfaction, and I will try to do the same for him. It appears that his wagon was an ox wagon; altogether different, then, from what I had imagined. Such a wagon on the farm is quite a contrast to a horse wagon used mostly on the road. Mine is a horse wagon and has been in use about every day that wheels can run and the weather is suitable for man and beast to work in Massachusetts. As to housing, I could not spare it long enough for that, hardly long enough to have it painted as it should be. When one has been thus used for fifteen years it needs a good deal of repairing; in fact I consider it worn out. Friend Rollins thinks that we must have poor timber in Plymouth county, or poor workmen. I calculate to use the best of lumber, and as I do the wood work myself, I spare no pains. I use no timber that has knots, shakes or sap in my work. Lest we tire the patience of the editors and readers of the FARMER, perhaps friend Rollins and I had better confine our chat about wagons and wheels to private letters or personal conversation.

S. DENHAM.

South Hanson, Mass., April 5, 1871.

WHITE SPECKS IN BUTTER.

In reply to the inquiry about white specks in butter, I will say that when cream is removed there is usually more or less milk taken with it. This in warm weather settles, sours and becomes like cheese; and in cold weather a similar result is produced by heating or warming the cream for churning. I never have white specks in my butter when I stir the cream in the jar with my butter paddle every time I add more cream to the jar, first stirring also, in the dish, that which is added. By this means the milk does not settle, but is kept thoroughly mixed with the cream. If the weather is warm I stir the cream in the jar every day, whether I add any to it or not. I have practiced this method eight years and have had no trouble with white specks in my butter. MRS. C. D.

Dartmouth, Mass., 1871.

A NEW WAY OF MAKING CHEESE.

In a conversation recently with an intelligent gentleman, one interested in all farm processes, and practically familiar with many parts of farming, he related the manner of making, or rather of pressing cheese, practiced by a neighbor of his—a woman skilled in household economy, and famous for her nice cheese. With the number of cows usually kept, it takes three days to make a cheese. Her former method was to run up a curd each morning, keeping them until the third day; then mixing old and new curds together, and putting them into the hoop and pressing. Her practice is now to run up the curd and put it into the press at once, the hoop being about one-third full. The next morning the second curd is run up, that which was in the hoop is taken out, the cloth changed, placed in the hoop again, the top of it then scratched or broken with a fork, and the second curd put in, when it is again placed in the press, where it remains all day. The third morning's curd is then run up, the cheese taken from the press, turned, the surface hacked up with a fork, and the third curd again sliced on, bringing the first curd in the middle of the cheese. It is then pressed sufficiently, taken out and placed in the curing-room. By this process the work each morning is cleared all away, and a good-sized cheese is produced of superior quality, and one as firm and solid as if all were placed in the hoop at once.—*Maine Farmer.*

THE HORSE MARKET.

We are sometimes asked as to the state of the horse market in this vicinity. To such inquiries we have replied that the prices of horse flesh were governed entirely by fancy, for anything except those offered as workers, or those which have become broken down from age, ill treatment or other causes, and that in giving the range from $5 to $1500, or more, we were really giving no guide whatever to the average rate. The following, from the *Journal* of a late day, gives some interesting information on this point:—

The remarkable mild weather of the last month has brought about, among other things, an early opening of the horse market. Generally not much is done in this line until April, but the demand for good horses is quite active, while the supply is constantly increasing. Car loads from all sections of the country are arriving every day, and a visit to the established horse marts shows considerable activity in this extensive business.

Any one, after a casual visit to these institutions, will very naturally ask, where do these horses all come from, which could in a measure be better answered by detailing where they don't come from, as a large proportion of the States help to keep the market supplied, and a large amount of Canadian stock finds its way into the large cities in the course of a year. New England supplies the finest driving horses that are found in this market, both as regards speed and style. Maine sends among her quota many of the Knox stock: Vermont has, in previous years, sent numerous representatives of the Morgan blood, and in this State it will not be difficult to find on the various stock farms horses of high pedigree, such as Morrill, Black Hawk, Hambletonian, Abdallah, Mambrino and other well-known stock. Having been raised in our changeable climate they are better adapted for this market and bring high prices.

Kentucky and New York supply a very large number of fine horses, a large proportion of them blooded. Ohio, Michigan, Indiana and Pennsylvania also furnish a large supply, those from the latter State being, for the most part, large draft horses, as they are possessed of great endurance.

The horses that come from a distance are handled with great care after they arrive, in order that they may become acclimated. They are lightly fed and exercised but little for a few days. They come loaded fifteen to seventeen in a car, in a loose state, with their hind shoes off, and the best class of horses have their tails braided and protected, to prevent their being mutilated, as it is sometimes the case that, in their journey hither, occupying in some instances four or five days, they are unloaded and fed but once, and becoming hungry they will gnaw at anything.

Prices may be quoted as stiff, good working horses bringing all the way from $175 to $350. Driving horses are in good demand, and it is rather difficult to fix the prices, so much depending on the style, speed, action and pedigree of the animal. A fine horse can be bought for about $300, while a horse first class in every respect will bring $1000 readily, and the higher cost stock sells quite as quick as that of an inferior grade.

RAISING POTATOES.

I am convinced that we talk too much about "large *vs.* small potatoes for seed," "planting in hills or drills," and depth of covering, and far too little about enriching and preparing the ground, and keeping the crop free from weeds. If the land is dry, rich, and clean, and the potatoes are planted in good season, and the soil kept well stirred by the use of the cultivator until there is actual danger of cutting off the roots and tubers, and any weeds that have escaped the hoe are afterward pulled out by hand, the chances are favorable for a good crop, no matter what system of planting is adopted. And, on the other hand, if the land is wet and poor, and the weeds are suffered to choke the crop, it is no use to talk about size of seed, or distance of hills. Get the land right, and if you have then time to talk about new varieties, and the best method of planting, well and good; but do not try to get a good crop by any species of agricultural legerdemain. You cannot cheat nature; and all who attempt to do so are ultimately found out and punished. It is the greatest evil connected with our farming.

Seeding Down Without Manure.

M. S. Clark, of Vermont, has a piece of land that was in corn last year that he wishes to sow next fall with winter rye and seed down with grass. His object is to get a good permanent meadow or pasture. He has no ma-

nure, and proposes to sow the field this summer with buckwheat and turn it under, and asks my opinion of the plan. If the soil is clayey, I should prefer a good summer fallow. Make the land as smooth and mellow as a garden, and sow on the grass-seeds the last of August without any other crop. Mr. C. asks me "how many crops of buckwheat would be equal to a dressing of 25 tons of barn-yard manure." We have not the necessary data to answer this question, but judging from what facts we have, I think it would take eight or nine average crops of buckwheat to furnish as much nitrogen as is contained in twenty-five tons of good manure.—*J. Harris, in American Agriculturist.*

SOAP AND HOG CHOLERA.

J. T. Busty, Lancaster, O., writes to the *Ohio Farmer*, that he had known hogs, said to have this disease, dissected, and the stomach, bowels, and liver found to be full of worms, three and four inches long, the ends of them being pointed and sharp, and of a hard, rough wiry appearance. In one instance the cavity of the gall was crowded full of these worms. His Poland pigs got the cholera. He caught the pigs, placed them on their backs, one boy holding the legs and another the ears, and gave each pig a tablespoonful of soft soap, morning and evening, for three days. The second day he observed in their droppings, long, stringy substances, which he found to be the skins of what he supposed to be worms, which was proof to him that the soap had the desired effect. He also put soft soap into the swill and fed his other hogs, which improved their appearance very much.

LEFT-HANDEDNESS.—Many parents try to cure their children of left-handedness by using severe measures, such as whipping, or obliging the child to go for weeks with the left hand tied to the body. Some even go so far as to make it a matter of special shaming and mortification. These should never be tried until a patient trial of pleasanter measures has failed. Left-handedness certainly produces an awkward effect, but it is not one of the cardinal sins. If a child can be taught to write with her left hand, to use her knife, fork and spoon properly, raise her glass, and offer her right hand in salutation, it is by no means necessary to cure her of using the left hand occasionally. In many cases, to be ambi-dextrous is invaluable to a woman. All needlework should be carefully taught with the right hand as needle-holder, but left-handedness should not be treated as a crime to be punished. The child should be kindly told its disadvantages, and shown how awkward it looks. A pretty coral bracelet of beads, strung on elastic, worn on the right hand, has a marvellous effect on left-handed girls, and is always worth trying.—*Hearth and Home.*

Ladies' Department.

LOVE'S COLORS.

BY C. C. FRASER-TYTLER,

Not violets I gave my love,
That in their life are sweet and rare,
And deep in color, as the heart
Whose every thought of her is prayer;
For violets grow pale and dry,
And lose the semblance of her eye.

No lily's buds I gave my love,
Though she is white and pure as they;
For they are cold to smell and touch,
And blossom but a single day;
And press'd by love, in love's own page,
They yellow into early age.

But cyclamen I chose to give,
Whose pale white blossoms at the tips
(All else as driven snow) are pink,
And mind me of her perfect lips:
Still till this flower is kept and old
Its worth to love is yet untold.

Old, kept and kissed, it does not lose
As other flowers the hues they wear;
Love is triumphant, and this bloom
Will never whiten from despair;
Rather it deepens as it lies,
This flower that purples when it dies.

So shall my love, as years roll by,
Take kingly colors for its own;
Sole master of her vanquish'd heart,
Am I not master of a throne?
Crush'd by no foot, nor cast away,
My purple love shall rule the day.

THE MANAGEMENT OF CHILDREN.

There is a tendency, we think, at the present day, to put children too forward, not so much for the sake of showing off their extraordinary merits to an admiring world, as from the better motive of early accustoming them to the conversation of grown people and the usages of society, and of inspiring them with confidence, ease, and self-possession. No doubt these results are very valuable; but the mistake which many people make is in forgetting that children are something like dogs, which require to be very well trained before they can safely be recommended to the familiarity of strangers. And it is to be remembered that the moment children cease to respect any of the grown-up people with whom they associate, not only is the whole benefit of the intercourse lost at once, but real injury is inflicted on the moral tone of the child. For this reason children should be brought as little as possible into the society of men and women who cannot command their respect; while of those who can, the influence should be hedged round by all the numerous impalpable barriers which judicious parents know perfectly well how to interpose between children and the most popular and careless of their adult playfellows. The confidence which well-bred children at once repose in an eligible stranger, without being either rude or troublesome, is charming to everybody who has any natural taste for their society.

But closely allied with the mistaken license allowed to children in matters like the above is the disposition to laugh at, and thereby to encourage, all traits of singularity, oddness, or affectation which children may exhibit, as marks of genius which ought not to be repressed. Of all the dangerous errors into which parents can fall, this, in our opinion, is the worst. For nothing so soon hardens into second nature as juvenile eccentricity; and few things are more injurious to success in life than marked oddities of manner and gesture when they reach the point of grotesqueness. The majority of the world agree with Mr. Peter Magnus; they don't see the necessity of originals. And what is more, so many "originals" are only sham ones after all. That is to say, their singularity is merely a bad habit which they can't shake off, and it is only very partially innate. When you see a child doing anything unlike other children, anything queer, surprising, or uncouth, however comic or however clever it may seem, never laugh at or applaud it. Children naturally very self-willed, and with real natural peculiarities, can soon be broken of such tricks, if treated with absolute indifference. But once let the idea find its way into their brains that such sallies, naughty though they be, are regarded as marks of genius, and the mischief is done.

To come back to the point from which we started—the management, namely, of young children—there is one thing to be laid down: let there be no divided rule in a house. Don't let the children see that the father means one thing and the mother another in their bringing up. They see the difference, if it exists, in a moment; and when they do, farewell to all wholesome parental influence. Husbands and mothers may talk too freely before their children, forgetful of their rising intelligence. And, indeed, nothing is more common than to get a wink from the head of the house, implying that you are to be on your guard before Johnny or Tommy, who is listening open-mouthed to your witty narrative, while he himself the next moment will offend against his own precautions in the most barefaced manner by plunging headlong into your domestic controversy, in which, to speak metaphorically, knives are freely used on both sides.—*Macmillan's Magazine.*

TO YOUNG HOUSEKEEPERS.

Be satisfied to commence on a small scale. It is too common for young housekeepers to begin where their mothers ended. Buy all that is necessary to work skillfully with; adorn your home with all that will render it comfortable. Do not look at richer homes, and covet their costly furniture. If secret dissatisfaction is ready to spring up, go a step farther and visit the homes of the suffering poor; behold dark, cheerless apartments, insufficient clothing and absence of all the comforts and refinements of social life, and then return to your own with a joyful spirit. You will then be prepared to meet your husband with a grateful heart, and be ready to appreciate the toil and self-denial which he has endured in the business world to surround you with the delights of home, and you will co-operate with him in so arranging your expenses that his mind will not be constantly harassed lest his family expenditures may encroach upon public payments.

Be independent; a young housekeeper never needed greater moral courage than she does now, to resist the arrogance of fashion. Do not let the A.s and B.s decide what you shall have, neither let them hold the strings of your purse. You know best what you can and ought to afford. It matters but little what people think, provided you are true to yourself, to right and duty, and keep your expenses within your means.—*Rural New Yorker.*

GARDENING AS WOMAN'S WORK.

This has long seemed to me an employment in which women would not only gain health and strength, but in which the most modest and retiring might find a congenial occupation, and the products of which are never depreciated because raised by a woman. A peck of peas has a certain market value, not dependent upon the hands which raised them. A woman who works on pants receives fifty cents a day, not on account of the amount or quality of her work, but because she is a woman. A man engaged upon the same garments receives $2 a day, not because of the amount or quality of his work, but because he is a man. It is doubtless true that, in very many cases, the man does his work better than the woman; but it is not less true that, in a majority of cases, the difference in price grows out of the difference in sex. So of the school. A male teacher receives $1000 a year, not because his moral influence is better, not because the pupils learn more, but because he is a man. A woman teaches a similar school, and receives $400, not because of the inferiority of her moral influence in the school, not because the pupils learn less, but because she is a woman. Now, happily, all this is avoided in gardening. A man who would sell a beet is not obliged to put on a label, "raised by a man, ten cents," and upon another, "raised by a woman, four cents," but the article brings its market value. This is a great advantage, and one affording a special gratification to women of spirit. Besides, gardening is an occupation requiring very little capital, and, except in the fancy departments, comparatively little training. Near any of the cities a woman can earn more upon a half acre of land, with four months' work, than she can earn by sewing twelve months, saying nothing of the healthfulness of gardening,

and the unhealthfulness of sewing.—*Our Girls, by Dio Lewis, A. M., M. D.*

DOMESTIC RECEIPTS.

LARD.—Leaf lard is the nicest for all cooking purposes; skin all the fat that is to be tried into lard, and commence by frying gently a little leaf lard, or your fat will scorch; let it cook slowly, and dip off the fat as fast as it is liquefied, and strain it through a cloth; when all is strained that can be dipped off, squeeze the remainder by itself in the cloth. If the lard is to be used for cooking, salt it a trifle when first put on; much of the salt will be found at the bottom of the kettle undissolved, still, it would seem to be better that salt should be used. If the lard is to be used for burning in lard lamps, salt would be injurious. If the fat is not skinned before trying, the gluten in the skin will make the lard impure and frothy. Save the scraps and skins for soap grease.

BUCKWHEAT CAKES.—One quart of buckwheat flour, mix with lukewarm water, rather thicker than you will wish it when ready to bake. A cup of Graham meal added is, we think, an improvement; stir in a cup of family yeast, or half a penny's worth of bakers', and a teaspoonful of salt; mix in an earthern bowl, or a large earthern pitcher; the latter is the most convenient as the batter can be poured from the lip of the pitcher more neatly than it can be dipped out of a bowl; set it where it will keep warm all night. The batter should be made early in the evening, as it takes fully ten hours in winter to rise; when ready to bake in the morning beat half a teaspoonful of soda into a great spoonful of molasses and stir into the batter, adding also enough lukewarm water to make it thin enough to fry; bake quick; the thinner the cakes can be baked the better they will be.

FRENCH MODE OF FRYING POTATOES.—Cut them in whatever shape you wish above a bowl of cold water so that they will drop into it. Then drain and wipe them dry. This must be done quickly, so as not to allow the potatoes to become reddish. Have a coarse towel ready, then turn the potatoes into a colander, and immediately turn them into the towels, shake them a little, and quickly drop them into hot fat. When done turn them into a colander, sprinkle salt on them and serve hot. If you wish them light or swelled, leave the potatoes in the colander only about half a minute, then put them back in the very hot fat, stir for about a minute, and put them again in the colander. If the fat is very hot, when dropped into it for the second time, they will swell.

ORANGE PUDDING.—Peel and cut five good sweet, juicy oranges into thin slices, taking out all the seeds. Pour over them a coffee-cup of white sugar. Let a pint of milk get boiling hot by setting it into some boiling water; add the yolks of three eggs, well beaten, one tablespoonful of corn starch, made smooth with a little cold milk. Stir all the time, and as soon as thickened pour it over the fruit. Beat the whites to a stiff froth, adding a tablespoonful of sugar, and spread over the top for frosting. Set it into the oven for a few minutes to harden. Eat cold or hot for dinner or tea. Substitute berries of any kind, or peaches, if you like them better than oranges.

COLD VEAL.—Mince the veal very fine, with a little ham, a tablespoonful of flour, three well-beaten eggs, one small onion, scalded for five or ten minutes to remove the coarser flavor, and then chopped fine; sweet herbs, pepper, and salt, to suit the taste. Butter a deep pie-plate; set a small cup in the centre, and fill the plate all round the cup with the mince-meat. Bake of a delicate brown; then remove the cup, and fill its place with some nice sauce—apple, cranberry, or jelly, or, if you please, some scolloped oysters. Beef, lamb, or chicken prepared in the same way is very good.

APPLE SNOW.—Stew some fine flavored sour apples tender, sweeten to taste, strain them through a fine wire sieve, and break into one pint of strained apple the white of an egg; whisk the apple and egg very briskly, till quite stiff, and it will be as white as snow; eaten with a nice boiled custard it makes a very desirable desert. Season with a very little nutmeg and cinnamon, add a little butter, and bake in good pastry; and you will have a very good apple pie.